DOCUMENT RESUME

ED 183 098 HE 012 354

AUTHOR Errecart, Michael T.; And Others
TITLE Basic Educational Opportunity Grant Quality Control Study: Findings and Recommendations, Volume I.
INSTITUTION Macro Systems, Inc., Silver Spring, Md.; Westat Research, Inc., Rockville, Md.
SPONS AGENCY Bureau of Student Financial Assistance (DHEW/OE), Washington, D.C.
PUB DATE Nov 79
NOTE 303p.; For related documents see HE 012 353-355. Some tables may not reproduce well due to small type.

EDRS PRICE MF01/PC13 Plus Postage.
DESCRIPTORS College Students; Educational Finance; Eligibility; *Federal Aid; Federal Programs; Financial Needs; Higher Education; Loan Repayment; Needs Assessment; *Program Administration; Program Descriptions; Program Evaluation; Program Improvement; *Quality Control; Records (Forms); Student Costs; *Student Financial Aid; *Student Loan Programs; Surveys
IDENTIFIERS *Basic Educational Opportunity Grants; *Financial Aid Applicants; Student Financial Aid Officers

ABSTRACT

Findings and recommendations of the Basic Educational Opportunity Grant Control Study Volume I are presented. The culmination of a year of intensive effort in which the study was designed and data collection and analysis conducted is evaluated, with focus on improvement of the Basic Grant Program. The introductory chapter discusses the background of this study emphasizing the limitations and scope of the control study and the basic organization of this volume. Chapter 2, the Basic Grant Cycle, presents an analysis of eligibility index and award errors keyed to the application cycle. Chapter 3, Institutional Feedback on BSFA Activities, examines data from institutional interviews, which focus on the problems, suggestions, and perceptions of postsecondary institutions regarding BSFA services. Chapter 4, Institutional Practices, deals with institutional procedures and practices, again based on interview data and school publications. A concluding section reviews student sector actions, institutional sector actions, and other actions. Comprehensive statistical data and tables are included, such as evaluation of application instructions, result of verification process, BSFA area desk experience, flow chart of the Basic Educational Opportunity Grant Program application and award process, and distribution of award errors. (LC)

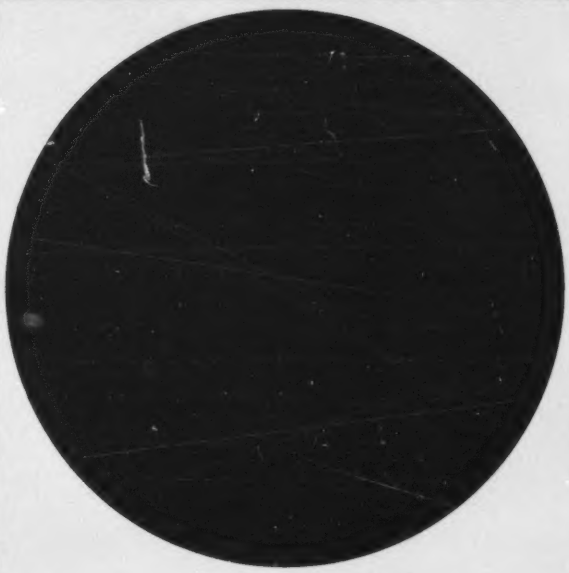
****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED183098

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

HE 012 354



BEOG

Basic Educational Opportunity Grant Quality Control Study

VOLUME I

BASIC EDUCATIONAL OPPORTUNITY GRANT QUALITY CONTROL STUDY:

FINDINGS AND RECOMMENDATIONS

Prepared by:

Michael T. Errecart
Lewis C. Price
Eric M. Small

In Conjunction with:

Westat, Inc.
Rockville, Maryland

For:

Office of Education
Bureau of Student Financial Assistance
Division of Quality Assurance

Macro Systems, Inc.

November 30, 1979

MAR 0 4 1980

TABLE OF CONTENTS

		Page Number
	ACKNOWLEDGMENTS	
	EXECUTIVE SUMMARY	i
1.	INTRODUCTION	1-1
	. Background	1-1
	. The Basic Educational Opportunity Grant Quality Control Study	1-3
	. Other Products Of The Quality Control Study	1-4
	. Limitations And Scope Of The Study	1-4
	. Organization Of Volume	1-7
2.	THE BASIC GRANT CYCLE	2-1
	. Overview, Source Of Data	2-1
	. The First Phase: The Student Application Process	2-2
	. The Second Phase: Institutional Award Calculations	2-21
	. The Third Phase: Institutional Monitoring And Payments	2-27
	. Summary Of Award Discrepancies	2-29
3.	INSTITUTIONAL FEEDBACK ON BSFA ACTIVITIES	3-1
	. Overview, Source Of Data	3-1
	. OE Validation	3-2
	. Communications	3-4
	. Materials, Publications	3-7

TABLE OF CONTENTS(continued)

		Page Number
	. Training	3-9
	. Fiscal Operations	3-11
4.	INSTITUTIONAL PRACTICES	4-1
	. Satisfactory Academic Progress	4-1
	. Refund And Repayment	4-4
	. Evaluation Of Enrollment Status	4-7
	. Institutional Validation Practices	4-10
	. Other Practices	4-13
	. Other Potential Basic Grant Award Errors	4-14
	. Conclusions	4-15
5.	CONCLUSIONS AND RECOMMENDATIONS	5-1
	. Student Sector Actions	5-1
	. Institutional Sector Actions	5-12
	. Other Actions	5-20

INDEX OF EXHIBITS

		Following Page
2-I	FLOW CHART OF THE BASIC EDUCATIONAL OPPORTUNITY GRANT PROGRAM APPLICATION AND AWARD PROCESS	2-3
2-II	PROCEDURE FOR CLASSIFYING STUDENT STATUS BASED ON PARENT AND STUDENT RESPONSES TO KEY QUESTIONS	2-9
2-III	DISTRIBUTION OF NET EFFECTIVE EI ERRORS FOR ALL STUDENTS	2-11
2-IV	DISTRIBUTION OF NET EFFECTIVE EI ERRORS FOR DEPENDENT STUDENTS	2-11
2-V	NET EFFECTIVE EI ERRORS FOR INDEPENDENT STUDENTS	2-11
2-VI	DISTRIBUTION OF EXPECTED DISBURSEMENT ERRORS DUE TO STUDENTS, FOR ALL STUDENTS	2-11
2-VII	DISTRIBUTION OF STUDENT EXPECTED DISBURSEMENT ERRORS FOR DEPENDENT STUDENTS	2-11
2-VIII	DISTRIBUTION OF STUDENT EXPECTED DISBURSEMENT ERRORS FOR INDEPENDENT STUDENTS	2-11
2-IX	SUMMARY OF INDEPENDENT/DEPENDENT TOTAL DOLLAR DISCREPANCY SHARES	2-13
2-X	SUMMARY OF MULTIPLE DATA ENTRY APPLICANTS' TOTAL DOLLAR DISCREPANCY SHARES	2-14
2-XI	SUMMARY OF TOTAL DOLLAR DISCREPANCY SHARES BY TYPE OF SCHOOL ATTENDED	2-15
2-XII	SUMMARY OF TOTAL DOLLAR DISCREPANCY SHARES BY CONTROL OF SCHOOL ATTENDED	2-15
2-XIII	DISTRIBUTION OF INSTITUTIONAL EXPECTED DISBURSEMENT ERRORS FOR ALL INSTITUTIONS	2-23
2-XIV	DISTRIBUTION OF AWARD ERRORS	2-30

INDEX OF EXHIBITS (continued)

		Following Page
3-I	PRIMARY INSTITUTIONAL RECOMMENDATIONS ON OE VALIDATION	3-3
3-II	INSTITUTIONAL PARTICIPATION IN OE-SPONSORED TRAINING	3-9
4-I	TYPES OF ACADEMIC CALENDARS USED	4-7
4-II	TYPES OF CREDIT MEASUREMENT SYSTEMS USED	4-8

INDEX OF TABLES

		Following Page
2.1	PARENT INVOLVEMENT IN COMPLETING APPLICATION	2-5
2.2	USE OF INSTRUCTIONS IN COMPLETING APPLICATION	2-5
2.3	EVALUATION OF APPLICATION INSTRUCTIONS	2-5
2.4	EXTENT OF REVIEW OF STUDENT ELIGIBILITY REPORT	2-6
2.5	EXTENT OF CORRECTIONS REQUIRED	2-6
2.6	REASONS FOR CORRECTIONS	2-6
2.7	RESULT OF VERIFICATION PROCESS	2-7
2.8	SER FILING STATUS BY VERIFICATION FILING STATUS	2-10
2.9	SUMMARY OF ELIGIBILITY INDEX DISCREPANCIES	2-12
2.10	SUMMARY OF EXPECTED DISBURSEMENT DISCREPANCIES	2-12
2.11	STUDENT EXPECTED DISBURSEMENT ERRORS BY TYPE AND CONTROL OF INSTITUTION	2-14
2.12	EXPECTED DISBURSEMENT DISCREPANCIES BY INCOME LEVEL	2-15
2.13	IMPACT OF INDIVIDUAL SER ELEMENT DISCREPANCIES ON ELIGIBILITY INDEX	2-16
2.14	IMPACT OF INDIVIDUAL SER ELEMENT DISCREPANCIES ON EXPECTED DISBURSEMENTS	2-18
2.15	DISCREPANCIES IN SER ELEMENTS WITH GREATEST IMPACT ON DISBURSEMENTS	2-18
2.16	SUMMARY OF EFFECT OF REMOVING VARIOUS EQUITY COMPONENTS	2-19
2.17	MOST DIFFICULT ITEMS TO SUPPLY ON APPLICATION	2-20
2.18	INSTITUTIONAL ERRORS IN EXPECTED DISBURSEMENT	2-22

INDEX OF TABLES (continued)

		Following Page
2.19	REASONS WHY THE AFFIDAVIT OF EDUCATIONAL PURPOSE WAS NOT VALID	2-23
2.20	DECOMPOSITION OF INSTITUTIONAL ERRORS BY TYPE OF ERROR	2-24
2.21	PERCENT OF STUDENTS RECEIVING AN AWARD DETERMINED TO BE INELIGIBLE OR NOT FILING AN AFFIDAVIT OF EDUCATIONAL PURPOSE	2-26
2.22	DISTRIBUTION OF DISCREPANCIES BETWEEN THE VERIFICATION COST OF EDUCATION AND THE INSTITUTION'S COST OF EDUCATION	2-26
2.23	TOTAL EXPECTED DISBURSEMENT ERRORS	2-30
2.24	OVERALL ERRORS IN EXPECTED DISBURSEMENT INCLUDING ONLY THOSE STUDENTS WHO HAD RECEIVED THEIR FIRST PAYMENT AT THE TIME OF DATA COLLECTION	2-31
3.1	EXTENT AND IMPACT OF OE VALIDATION	3-2
3.2	TELEPHONE COMMUNICATIONS EXPERIENCE	3-4
3.3	WRITTEN COMMUNICATIONS EXPERIENCE	3-5
3.4	OPEN-ENDED COMMENTS ON OE COMMUNICATIONS	3-6
3.5	AVAILABILITY AND QUALITY OF BEOG MATERIALS	3-7
3.6	DIFFICULTIES IN OBTAINING BEOG MATERIALS	3-8
3.7	OPEN-ENDED COMMENTS ON BEOG MATERIALS	3-8
3.8	INSTITUTIONAL EVALUATION OF BEOG TRAINING	3-10
3.9	ADJUSTED AUTHORIZATION EXPERIENCE	3-12
3.10	YEAR-END ROSTER EXPERIENCE	3-12
3.11	SPECIAL PROBLEMS WITH FISCAL OPERATIONS	3-13
3.12	BSFA AREA DESK EXPERIENCE	3-14

INDEX OF TABLES (continued)

		Following Page
4.1	DESCRIPTION OF SATISFACTORY ACADEMIC PROGRESS (SAP) POLICIES	4-1
4.2	RESPONSIBILITY FOR AND FREQUENCY OF SAP DETERMINATION	4-3
4.3	BEOG OVERPAYMENTS BY REASON	4-5
4.4	DESCRIPTION OF INSTITUTIONAL REFUND POLICIES	4-6
4.5	CHARACTERISTICS OF TUITION REFUND POLICIES BY CONTROL	4-6
4.6	INSTITUTIONAL VALIDATION ACTIVITIES	4-10
4.7	TYPES OF INSTITUTIONAL VALIDATION DOCUMENTATION COLLECTED	4-12
4.8	ERRONEOUS INSTITUTIONAL AWARDS OF BASIC GRANTS	4-15

ACKNOWLEDGMENTS

This report is the culmination of a year of intensive effort in which the study was designed, and data collection and analysis conducted. During this time, many people provided valuable criticisms, comments, guidance, and other assistance, and, unfortunately, acknowledging all these contributions is impossible. Nonetheless, we would like to express our appreciation to all of the post-secondary school financial aid officers who gave so willingly of their time to assist us.

The Division of Quality Assurance, Bureau of Student Financial Assistance, is largely responsible for the basic design of the study and for managing it to fruition. Mr. Ernst Becker, the Division Director, and Dr. David Iwamoto, the Chief of the Statistical Analysis Branch, provided the leadership, guidance, and personal commitment without which the study could not have been completed. Sylvia Cowan, Denise Friedman, and Pat Morency of the Division of Quality Assurance provided valuable assistance in all phases of the study and in reviewing the study's products.

This report culminates the efforts of many Macro and Westat professional staff who made extraordinary personal commitments to the study. Dr. Edward Bryant of Westat served as the overall project leader, and in that capacity, provided the perspective, leadership, and technical advice without which the study may have floundered. Dr. Lance Hodes of Westat coordinated the efforts of the two firms, carefully reviewing and managing the many diverse tasks of this study. In addition to Dr. Lewis C. Price and Eric M. Small (co-authors of this report), special recognition should be extended to Dr. Nancy Schroeder, Richard C. Garner, Arlene C. Rosenthal, and all of the other Macro staff involved in the study. Finally, the work of Dr. Donald D. Rogers who served as Project Director during the design and early data collection phases of the project must be recognized. He was largely responsible for managing the many diverse design activities and for establishing the field operation, and, thus, for providing the basis for the success of this study.

Michael T. Errecart

CHAPTER 1. INTRODUCTION

CHAPTER 1. INTRODUCTION

1. BACKGROUND

The Basic Educational Opportunity Grant (BEOG) program, a student financial assistance program administered by the Bureau of Student Financial Assistance (BSFA) of the Office of Education (OE), is designed to provide a basic level of financial assistance to students attending participating postsecondary institutions in the United States. The awarding of Basic Grants is based solely upon the financial need of the student, taking into account his family's financial strength, his education costs, his enrollment status, and educational objectives.

The Basic Grant program has grown phenomenally since its inception, from a FY 1973-74 award level of $49.8 million to an estimated $1.56 billion in the 1978-1979 award period. During this time, the number of recipients has grown from .2 million to 1.7 million, and, as a result of the Middle Income Student Assistance Act, predictions have been made that the Basic Grant program will provide grants of $2.5 billion for up to 2.7 million students in the current year (1979-1980).

In a program the size of Basic Grants, it is vital that measures be taken to ensure its efficiency, integrity, and equity. To that end, BSFA has initiated several activities. They include:

- Tightened Edits Of Applicant Data--As part of the processing procedure, all applications are subject to standard system edits and range checks to identify obviously inconsistent or inaccurate information. The applicant is advised of any discrepancies and given an opportunity to correct them.

  For 1978-79, edits within the processing system were strengthened to require additional information from applicants who reported inconsistent financial data or left questions blank. As a result, approximately 1.5 million applications were rejected and required

additional information. Further, 484,000 or 12.5 percent of the total applicants never resubmitted their applications (through the corrections system). The analysis of corrections indicated that the average eligibility index increased, resulting in potentially lower awards.

Pre-Award Validation--Prior to 1978-79, validation was done for small samples by the central office. In February 1979, responsibility for validation was shifted to the institutions. Financial aid officers have been required to verify financial information for a preselected sample of eligible applicants prior to disbursing Basic Grant funds. Applicants are selected primarily on the basis of preestablished criteria designed to identify applications having a high probability of containing incorrect information on critical items. Approximately 120,000 eligible applicants were selected in 1978-79 and about 300,000 are expected to be selected in 1979-80.

Data Matches With SSA And VA--Routine data matches were implemented with the Social Security Administration (SSA) and Veterans Administration (VA) in the 1979-80 processing year. These matches compare data from Social Security and Veterans Administrations with applicant information. Basic Grant applicants who fail to report the correct amount of Social Security benefits are identified at the time the application is processed. Applications are returned for corrections only if the amount of underreporting affects the eligibility determination.

A comparison is also made for the Veterans' Educational Benefits field on the BEOG application. The edits lead to a return of the application if the VA tape indicates that VA benefits are underreported to BEOG, or if benefits reported by the VA are below the minimum VA payment rate.

Program Reviews--The Bureau of Student Financial Aid's program review effort is designed to: (1) determine if the institution being reviewed has operated the financial aid programs properly and provided the appropriate stewardship of the Federal monies involved as required by regulations; and (2) determine, disseminate, and make recommendations regarding good institutional management practices which are applicable to the individual institution and which may assist the institution in improving its management of Federally funded programs. Over 1,000 program reviews were conducted in 1978-79.

Audit Requirements--In order to strengthen the institutional accountability of Federal funds, regulations require institutions to have non-Federal audits at least every two years.

Simplified Form--The Office of Education plans to adopt, beginning with the 1980-81 award period, a common form on which students may apply for a Basic Grant and for aid under the

three campus-based programs. This form will eliminate data elements deemed superfluous or which, by their nature, require an applicant to make projections about conditions that cannot be precisely determined in advance.

Various analytical studies are also being conducted. They include:

- An analysis of preaward validation, edits, and corrections
- The IRS-BEOG tape match analysis
- The development of a profile of students rejected by the system who do not reenter it

In addition, a quality control study of the program was conducted; it is the subject of this report.

2. THE BASIC EDUCATIONAL OPPORTUNITY GRANT QUALITY CONTROL STUDY

The Division of Quality Assurance engaged Westat, Inc., and Macro Systems, Inc., to conduct a study of the Basic Grant program designed to estimate the extent of errors being made by Basic Grant program participants and the impact of these errors upon program expenditures. Specifically, the study examined three questions:

- What is the overall level of error in the program?
- What are the principal types of errors and what are the reasons for these errors?
- What management actions can be taken to reduce the level of error?

The study sample included:

- 225 postsecondary institutions, stratified by type, control, and geographic location
- 2,309 students, both independent and dependent, who attend these institutions
- The parents of these students

Institutional data consist of personal interviews with each school's student financial aid officer, published official school materials such as bulletins and course catalogs, and information from the Program Information Management System (PIMS). Student and parent data include:

- Personal interviews in which information provided in the Basic Grant application was corroborated through independent documentation
- Record abstracts of student data from school files
- The Basic Grant application system complete Student Eligibility Report (SER) transaction history

3. OTHER PRODUCTS OF THE QUALITY CONTROL STUDY

This report is one of a series of four products which also include:

- Volume I--Findings and Recommendations
- Volume II--Methodological details of the study
- Volume III--Supplementary analysis based on a second mail survey of financial aid officers, an end-of-year follow-up of the payment and enrollment histories of students in the sample, and other supplementary analysis. This volume is scheduled for publication in January, 1980.

4. LIMITATIONS AND SCOPE OF THE STUDY

The study reports data from a survey of a nationally representative sample of students who received Basic Grants between July 1, 1978 and approximately October 1978. As such, it excludes consideration of two groups:

- Applicants for BEOGs who were rejected or who were accepted but not paid. (The study is unable to comment on nonpayments to students who were rejected but have not reentered the system.)
- Applicants who applied later in the award year (after October 1978).

The sample is representative of approximately 1.35 million[1/] recipients of a total population of 1.7 million recipients (estimated) in 1978-79, so the preponderance of the recipient population is represented by our sample.

Nonresponse is not thought to be a significant problem as over 87 percent of the sampled students were interviewed and 100 percent of the sampled institutions with student recipients in the current year were included.

In assessing the student error analysis it should be noted that the amount of documentation collected varies considerably by data element (see Appendix E). For some elements, such as adjusted gross income, interviewers were able to obtain documentation in a high percentage of the cases (e.g., 88 percent for parents), while for other elements, documentation was available in as little as 10 percent of the cases (e.g., casualty/theft losses). Twenty out of 28 data elements supplied by parents were over 50 percent documented, while 19 out of 34 data elements supplied by students were over 50 percent documented.

A second factor to consider is that many items in the Basic Grant application are not "documentable" in the sense that there exists any standard, reliable document which provides the correct value for that item. In this category can be placed all questions calling for the market value of assets, questions asking the applicants to project his/her relationship with the parent in a future year, and questions which are summaries of separate items (such as nontaxable income). Further, Basic Grant data elements are often undocumentable when the respondents do not have a particular type of income or possess a particular type of asset, e.g., most respondents cannot provide documents stating they do not have nontaxable income or they do not own a business.

To overcome some of these problems, the study collected not only direct documentation, but also related documentation, i.e., documentation which reported values and/or characteristics which permitted a better evaluation of the respondent's answer. For example, property assessments and insurance statements

---

[1/] The sample for analysis weighted to 1.37 million; however, .02 million was excluded as a consequence of missing data.

were collected to evaluate the respondent's projected market value of the home. The interview itself was not conducted until the respondent was judged to have gathered together the maximum possible amount of information. While the study was not an independent financial investigation, the applicant was not told that this was the case. The appearance of comprehensiveness was further augmented by the fact that the applicant knew that his/her parents were to be separately interviewed, by the fact that additional requests for documentation were made (such as a request for official copy of the IRS 1040), and by the fact that the interviewer had been trained to probe in some depth and to use such data as was provided to full advantage in establishing an accurate profile of the applicant's financial situation. We believe that the data collection method has resulted in a more accurate database than has been available previously.

Finally, it should be noted that the Basic Grant program delivered about $1.5 billion to 1.7 million students in 1978-1979. Documentation was only required for about 120,000 students and then only for a small subset of the data elements involved in the Eligibility Index computation. While the study data are not perfectly documented, they do achieve, we believe, a higher standard than that under which grants are currently delivered.[2/]

There are a number of other considerations associated with specific parts of the study:

- The institutional interview data is based on 210 interviews.[3/] Thus, the precision of estimates derived from that data is considerably less than that derived from the student, parent and institutional error analyses. Nevertheless, the institutional interview data is from a nationally-representative set of institutions and is properly weighted to the universe of institutions. But,

---

2/ It should be noted that even if the discrepancies were totally unverified, the existence of a large number of discrepancies would suggest that grants were being made on very soft estimates and that the amounts of the grants were not being determined reliably.

3/ Fifteen schools were deleted from the study because they had no recipients in 1978-79.

because of the relatively small sample size, we recommend that the estimates presented be used for qualitative insights into institutional opinions and practices and not for precise, quantitative inferences on the characteristics of the universe of schools.

- The preponderance of the errors reported refer to errors in making initial award determinations. The extent to which institutions corrected or mitigated (or exacerbated) these errors during the period of the award is not known.

- The study did not include components to estimate processing-error rates by the multiple data enterers or by the application processor. As a result, those figures reported as "student errors" potentially include a component associated with the application processor's error.

In summary, the quality control study employs independent reviews of student data and institutional processes on a nationally representative sample of students and institutions. The analysis is done for the universe of recipients as of October, 1978, and principally deals with the effects of student and institutional errors on expected disbursements.

5. ORGANIZATION OF VOLUME

In Chapter 2 of this volume we present our analysis of eligibility index and award errors. The presentation is keyed to the application cycle: the initial focus is on the student application process and errors associated with it; the second section discusses institutional award errors and the reasons for them; and the third major section presents more limited information on payments and monitoring. A summary of overall errors, both student and institutional, concludes the Chapter.

Chapter 3 presents data from the institutional interviews which focus on the problems, suggestions, and perceptions of postsecondary institutions regarding BSFA services.

Chapter 4 deals with institutional procedures and practices, again based on interview data and school publications.

Chapter 5 presents our principal conclusions and recommendations arising from Chapters 2, 3, and 4.

CHAPTER 2. THE BASIC GRANT CYCLE

CHAPTER 2. THE BASIC GRANT CYCLE

1. OVERVIEW, SOURCE OF DATA

This section presents an analysis of the overall level of errors being made by Basic Grant program participants and the impact of these errors upon program expenditures. Four questions are specifically addressed:

- What is the overall level of error in the program?
- What portion of the overall error is due to the student application process?
- What portion is due to institutional award procedures?
- What are the principal types of errors and what are the reasons for these errors?

The analyses presented are based on data collected on a probability sample of 2,309 BEOG recipients in the 1978-79 award period and their parents. The sample design is best described as a two-stage cluster sample in which 225 institutions were selected in the first stage and 2,309 BEOG recipients from those institutions were selected in the second stage.[1/] Two basic criteria were used in the sample selection: (1) institutions were selected such that precise estimates of total error could be obtained by type of institution (i.e., two-year, four-year, and other) and control of institution (i.e., public, private, and proprietary); and (2) students were selected controlling for the level of grant amount[2/] so as to minimize the variance of the estimated total grant errors.

1/ Fifteeen institutions in the original sample with no recipients in the 1978-79 award period were dropped from the study.

2/ Students were selected so that the distribution of EIs in the sample reflected the distribution of EIs in each sample school. This was accomplished by sorting all recipients by the value of their EI and then sampling every "nth" recipient (after taking a random start).

The sample of students was weighted appropriately to the universe and the weights were corrected for nonresponse. The universe consisted of approximately 1.35 million BEOG recipients as of October 1978. A more detailed description of the sample design is presented in Volume II.

For each sampled recipient, the following data sets were assembled and matched for analysis:

- Student Eligibility Report (SER) Transaction History--The complete SER transaction history was abstracted from the Basic Grant application system. These data include items from the original application and corrections, as well as indicators concerning edit status, multiple data entry, validation, and other factors.

- Personal Interviews With Each Student And Their Parents--Personal interviews with both independent and dependent students and their parents were conducted to: (1) verify and document all application elements, (2) identify problems encountered in completing specific items on the BEOG application and the reasons for the problems, and (3) obtain information on applicant perceptions of the BEOG application process. Thus, personal interview data consist of both the results of the verification of the Basic Grant application and less reliable attitudinal data.

- Student Record Abstracts--Detailed record abstracts of student data from the institutional files were completed. These abstracts documented all information used by the FAO in determining each student's eligibility for a grant, the cost of education, full-time scheduled award, expected disbursement, and actual and anticipated payments. The award calculations and procedures were verified by the abstractors for each student to identify institutional errors. Available documentation sources on file for verifying specific application elements were also recorded.

Appendix H contains a summary of various measures taken to ensure the quality of the data collected in this study.

This chapter is organized into four principal sections: (1) Phase I--the student application process, (2) Phase II--institutional award procedures, (3) Phase III--institutional monitoring and payments, and (4) overall errors in awards due to students and institutions.

2. THE FIRST PHASE: THE STUDENT APPLICATION PROCESS

To receive a grant under the BEOG program, a student must first obtain and complete an application and forward it to the BEOG application processor

for determination of Basic Grant eligibility. Students may apply using the Federal Basic Grant Application, sending it directly to the application processor, or they may apply by completing any of several approved financial aid applications, from which the processors of those forms will extract Basic Grant information and transmit it to the application processor.[3/] The application data are edited and entered onto the transaction history file maintained by the application processor.[4/] If the application data pass a series of computerized edits, a student Eligibility Index (EI) is calculated and, together with any errors requiring correction and comments, is reported on the Student Eligiblity Report (SER) and forwarded to the applicant. If there are no errors, the applicant can then take the SER to the FAO at the institution he/she plans to attend for calculation of the award amount. For a sample of applicants, the FAO is required to have the student provide documentation verifying application data.[5/] Exhibit 2-I displays a flowchart of this part of the BEOG application and award process.

On the following pages we describe students' and parents' perceptions of the application process, along with an analysis of errors made by applicants and their impact on award determinations.

(1) Students' And Parents' Perceptions Of The Application Process

In the student/parent interviews, respondents were asked about their experiences and reactions to the application process, the accuracy/usefulness of the SER, the impact of OE efforts to validate application elements, and the student's loan status. Analyses of the interview responses focused on: (1) student versus parent response profiles, (2) independent versus dependent comparisons, and (3) differences between the BEOG application

---

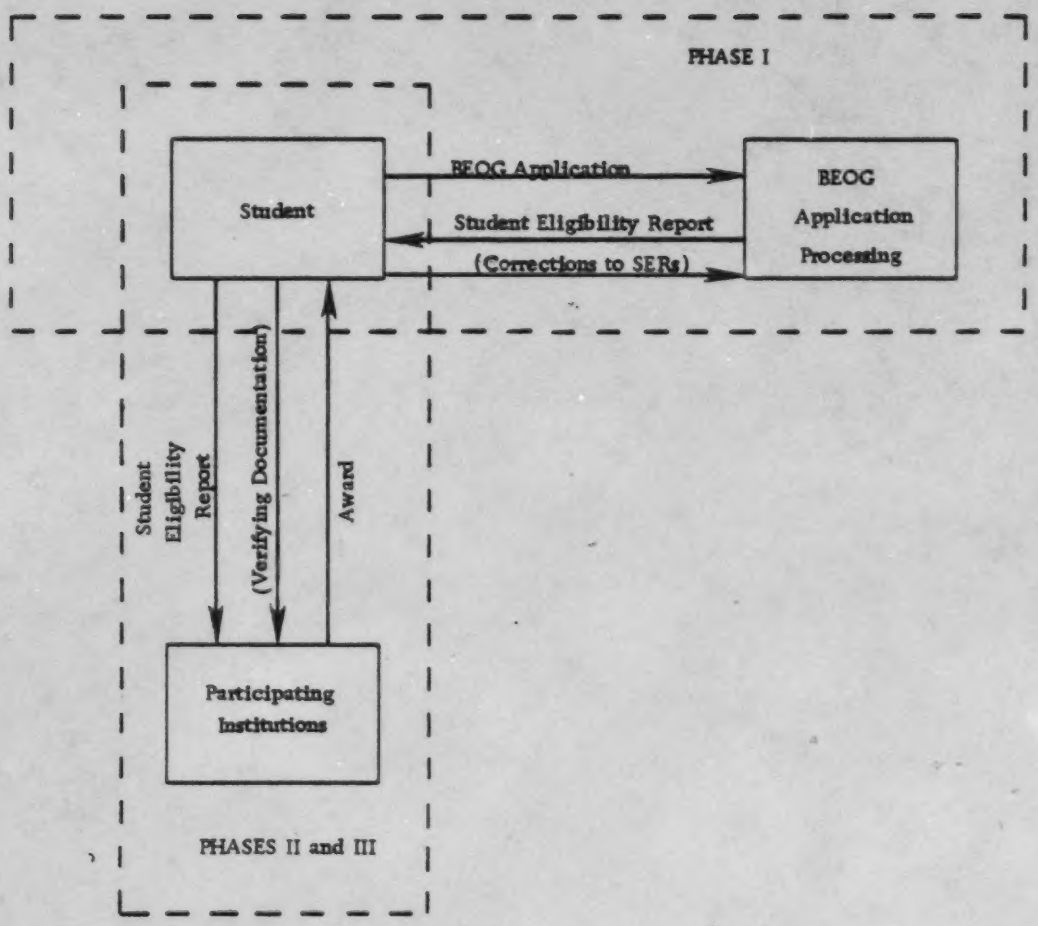
3/ The process is known as Multiple Data Entry.

4/ Based on the results of recent studies, the edit checks used have been tightened significantly.

5/ The validation effort in 1978-79 was the first year that FAOs were required to validate applicant data. Slightly less than 10 percent of the BEOG applicants were selected for verification of the information reported on their BEOG applications.

EXHIBIT 2-I

FLOW CHART OF THE BASIC EDUCATIONAL OPPORTUNITY GRANT PROGRAM APPLICATION AND AWARD PROCESS



PHASE I = The Student Application Process

PHASE II = Institutional Award Procedures

PHASE III = Institutional Monitoring and Payments

form, the Financial Aid Form (FAF),[6] and the Family Financial Statement (FFS)[7] (the three most common forms used in applying for Basic Grants).

The Initial Application

In general, the responses to queries about the application process indicated that students were more involved and responsible in all procedures than were their parents. Seven out of eight students at least helped fill out the form, whereas only about half of the parents were this active. (See Table A-1 in Appendix A.)

More students (one-half) than parents (one-third) needed help filling out the applications. However, parents more frequently required assistance with the BEOG form than with the FAF or FFS forms (see Table A-3, Appendix A). Since the FAF and FFS forms contain the BEOG data as a subset, their complexities must at least be equal to that of the BEOG form, so that these perceived differences in difficulty must be the result of differences in format, expression, instruction, or just confusion on the respondent's part.

Most of the students (60 percent) and half of the parents (50 percent) said that their form was obtained from the FAO at the school of attendance (see Table A-4 in Appendix A); this was true for all types of forms. Less than 10 percent of the applicants obtained the BEOG form from the Office of Education.

Approximately half the parents and half of the students indicated that they assisted each other in completing the application (see Table A-5 in Appendix A). As would be expected, parents of dependent students were

---

[6] Used by the College Scholarship Service of the College Entrance Examination Board.

[7] Used by the American College Testing Program.

generally more active in the application process than parents of independent students, although not to the exclusion of the student, as only 13 percent of the dependent parents claimed to complete the application alone (Table 2.1).

Students had a greater need for information from parents than vice versa. Exemption status, income, assets, and debts were all items for which at least 30 percent of the students indicated that they needed parental help in answering the question. (See Table A-6). Parents, on the other hand, rarely needed information from their children in completing the form. The item for which parents most frequently needed information from their children was income (21 percent of the parents).[8/]

Slightly more than half of the students and parents claimed they read the instructions completely (Table 2.2) and three-quarters of both groups found the instructions at least "somewhat helpful" (Table 2.3). Of the applicants working with the BEOG form, one-fifth of the parents found the instructions confusing as opposed to only one-tenth of the students. One parent in seven did not read the BEOG instructions at all.

On an open-ended question about additional/new problems with the application process, slightly more than one out of ten parents and students cited "difficulty with a specific item." Less than one-tenth found the forms "too burdensome," while more than half indicated "no new/additional problems." No significant difference between forms was observed.

The Student Eligibility Report

Because parents of dependent students were more active overall in the application process, it is not surprising that they were consistently more involved than the parents of independent students in reviewing the

---

8/ This is an interesting response as earned income is not required from dependent students, although nontaxable income received "by or for" the student is included. In particular, SSA and VA educational benefits are included.

Table 2.1

PARENT INVOLVEMENT IN COMPLETING APPLICATION

Filled out application alone

	Independent Parent	Dependent Parent	Total
Yes	0.3%	12.6%	12.9%
No	22.2%	64.9%	87.1%
	22.5%	77.5%	100%

Table 2.2

USE OF INSTRUCTIONS IN COMPLETING APPLICATION

When you filled out the form did you:

	BEOG		FAF		FFS	
	Parents	Students	Parents	Students	Parents	Students
Read the instructions completely before filling out the form	54.4%	63.4%	54.3%	58.2%	52.7%	52.1%
Read the instructions as necessary	31.3	33.6	39.1	39.1	41.9	43.7
Not read the instructions	14.3	3.1	6.6	2.6	5.4	4.2
	100%	100%	100%	100%	100%	100%

Table 2.3

EVALUATION OF APPLICATION INSTRUCTIONS

Did you find the instructions:

	BEOG		FAF		FFS	
	Parents	Students	Parents	Students	Parents	Students
Very helpful	44.9%	42.8%	37.6%	38.0%	42.3%	36.2%
Somewhat helpful	34.0	45.2	38.8	48.2	37.6	53.6
Not at all helpful	0.3	1.1	.3	1.0	1.6	0.2
Confusing	20.9	10.9	23.4	12.8	18.5	10.0
	100%	100%	100%	100%	100%	100%

SER when it was received. Seventy-three percent of the dependent parents at least reviewed the SER briefly (in contrast to 13 percent of the independent parents), and 34 percent claimed they reviewed the SER carefully (Table 2.4). It is also interesting that, given the involvement of the dependent parents in completing the application, only 10 percent of them recalled seeing the SER. The SER is sent to the student and, apparently, many students do not share the results with their parents. Finally, the responses of students to this question were not sensitive to whether the student was independent or dependent.

Twenty-six percent of the parents and 23 percent of the students claimed it was necessary to make corrections to the SER (Table 2.5). Of these respective groups, more dependent than independent parents and students needed to make corrections.

Most corrections were necessary because of a "mistake on the original application" or for "some other reason," although one person in five claimed that the SER did not report the information the applicant had provided (Table 2.6). The latter figure is, of course, suggestive of a high error rate on the part of the application processor, but is certainly not definitive and is, in fact, too high to be plausible. (For example, the proportion indicating processing error is almost twice as high as the 12-13 percent of applicants who actually compared the application to the SER (Table 2.4).) This study did not compare original hard-copy applications with the computerized SER information so no estimate of processing error has been developed. Further, much of the manual conversion process is done by the several agencies participating in multiple data entry.

Validation

Overall, only 9 percent of the students (and 13 percent of the parents) who made corrections indicated that errors were discovered during the OE validation process (Table 2.6). More errors were claimed by independent students (12 percent) than by dependent students (8 percent).

Table 2.4

EXTENT OF REVIEW OF STUDENT ELIGIBILITY REPORT

When the Student Eligibility Report (SER) was received this year, was it:

	Parents		All
	Independent	Dependent	Students
Compared to the application?	.7	13.6	12.9%
Reviewed carefully?	4.2	34.1	45.8
Reviewed briefly?	7.8	25.3	28.6
Not reviewed at all?	16.7	16.2	8.6
Not received?	70.6[1/]	10.8[1/]	4.2[2/]
	100%	100%	100%

1/ Note that SERs are sent to students, not parents.

2/ These students are recipients of Basic Grants, and were presumably paid based on SERs they provided to the school.

Table 2.5

EXTENT OF CORRECTIONS REQUIRED

Corrections on SER necessary:

	Independent	Dependent	Total
Parents	10.7%	27.1%	26.4%
Students	19.2	24.0	22.7

Table 2.6

REASONS FOR CORRECTIONS

Corrections were made for the following reason(s):

	Parents	Students
Mistake on original application	44.5%	46.8%
Information on the SER was different from what was on original application	19.4	26.9
Errors were discovered as a result of comments on SER	9.7	9.4
Errors were discovered during verification process by Office of Education (OE) or institution	12.7	9.1
Some other reason	26.4	22.6

* Totals add to more than 100 percent since multiple responses were allowed.

Only a small percentage of parents and students (15 percent and 18 percent, respectively) were requested to document information they supplied on the Basic Grant application. Most of these requests (66 to 67 percent) came from the school of attendance, while 20 to 24 percent came from OE (see Table A-7 in Appendix A).

Almost all respondents who were requested to supply validation information (98 percent of both parent and student groups) claimed they supplied the requested information. Again, as in the queries concerned with assistance in the application process, parents and students generally assisted each other in supplying documents. The results of the verification process were that only 18 percent of the students and 23 percent of the parents claimed they had to correct the application (close to the percentage with mistakes on the original application), and about two-thirds said they did not have to do anything (Table 2.7).

Loans

In response to questions on educational loan responsibilities and liability, only 10 percent of the parent group and 44 percent of the student group claimed they had financed post-secondary education with loans. Students indicated an average debt of $1,634 and parents an average debt of $1,490. No more than 20 percent of either group foresaw any problems repaying these loans and over 95 percent of each group claimed that they were not in default on any loans (see Table A-8 in Appendix A).

(2) Award Discrepancies Associated With Discrepancies On Student Applications

Estimates of the number and amount of BEOG award discrepancies caused by discrepancies found in student applications are presented in this section. First, the methodology for estimating award discrepancies due to application data discrepancies is described. Then, the extent and impact of discrepancies in filing status are discussed, followed by a section dealing with the effects of application discrepancies on EIs and the resulting

Table 2.7

RESULT OF VERIFICATION PROCESS

What was the result of the verification process? Did you:

	Parents	Students
Have to correct the grant application	23.1%	17.8%
Have to do something else	7.7	12.1
Have to do nothing	68.7	68.0
Or was the grant suspended	-	0.7
Still in process	0.6	1.3
	100%	100%

impact on expected disbursements. Last, the impact of discrepancies in individual SER elements on the award calculations is analyzed.

Methodology

"Award discrepancies" are defined as discrepancies in the calculated expected disbursement for each student. The reader is cautioned, however, that award discrepancies do not translate directly into payment discrepancies since the FAO may detect an award discrepancy at a later point in time and adjust subsequent payments appropriately.

To determine the number and amount of award discrepancies due to discrepancies on the student applications, it was first necessary to verify the filing status of the applicant (i.e., dependent versus independent). If the verified filing status agreed with the SER filing status, a "verification EI" and "verification expected disbursement" were computed based on the data obtained in the student/parent interviews and on institutional data (i.e., cost of education, enrollment status, and proration factors) obtained in the student record abstracts. To compute the potential award error due to student application discrepancies, another version of the expected disbursement was first computed, based on the EI used by the institution in calculating the award and the verification institutional data. The difference between these two computed expected disbursements represents the error due only to a potential error in the EI, holding the institutional data and award computation procedures constant. This difference represents the student award errors analyzed in this section. Appendix B provides a more detailed, step-by-step process for computing student errors.

If, on the other hand, the verification filing status disagreed with the SER filing status, the above procedures for computing student error could not be used, since the required verification data was not available to recompute the EI. These cases were excluded from the analysis.

The following discussion focuses on three types of student errors: (1) errors in filing status, (2) errors in EI points, and (3) errors in expected disbursement resulting from EI point errors and errors in filing status.

Filing Status Discrepancies

Applicants should have filed as dependent students if they indicated on their application that they: (1) were claimed (would be claimed) as an exemption by parents, (2) received (would receive) $600 or more from parents, or (3) lived (would live) with their parents for two consecutive weeks or more in 1977 or 1978 or 1979. Because verification data for these items were obtained from both parents and students independently, it was possible for their responses to disagree, and, in fact, disagreement did occur. Because of these disagreements, it was necessary to establish baseline decision rules to classify students based on the preponderance of the evidence available. It was not possible to project accurately the potential dollar impact of incorrect filing statuses because the correct combinations of parent and student data were not present.[9/]

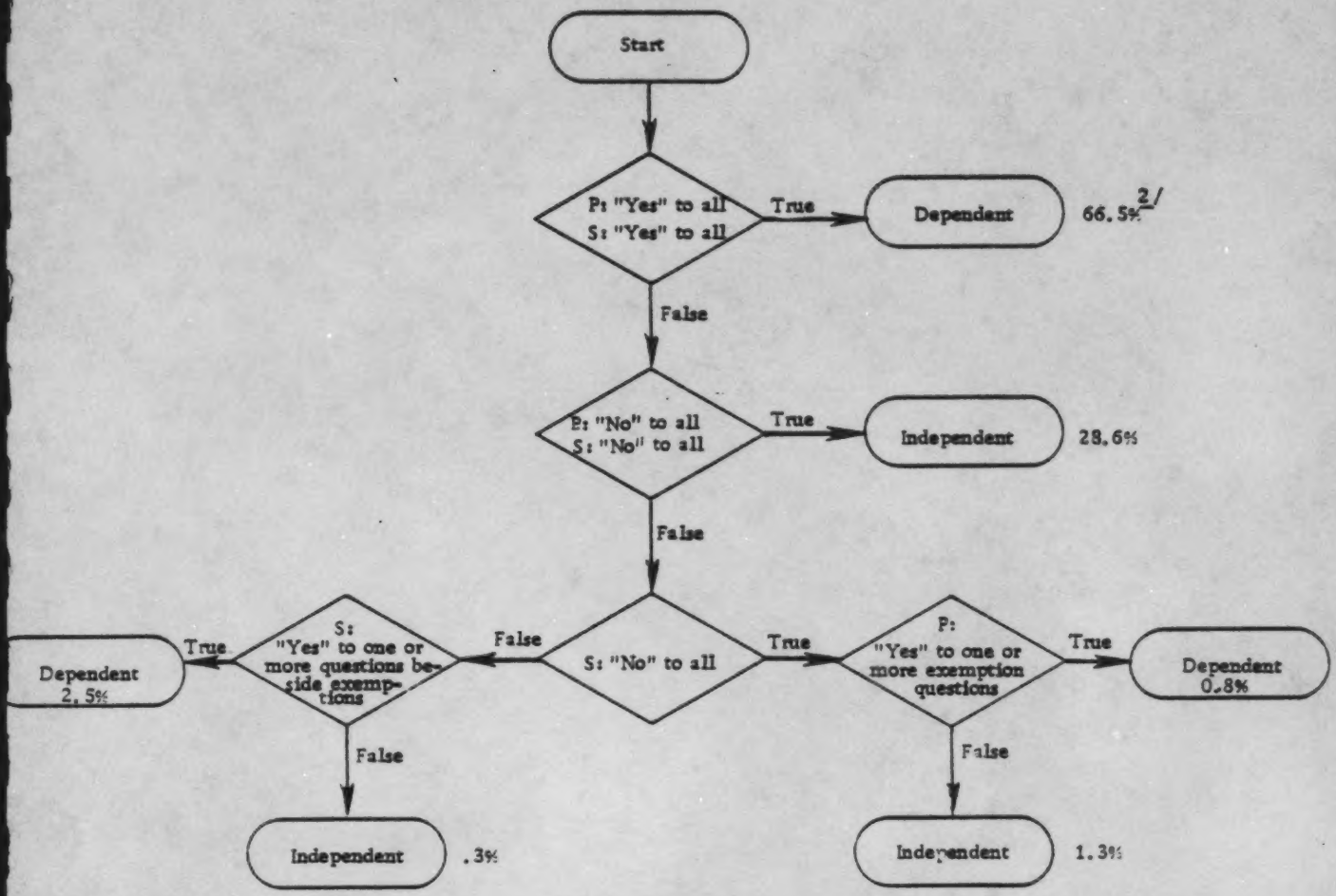
The resolution procedure, shown in Exhibit 2-II, was:

- If the parent interview and student interview resulted in the same filing-status conclusion, then that status was used. This situation could occur in two situations:
  - If both parent and student responded 'no' to all nine status questions, in which case the result was an independent determination
  - If the parent and student each responded 'yes' to one of the nine questions, in which case the result was a dependent determination. (The parent and student need not have responded 'yes' to the same questions.)

9/ In particular, parents of independent students were not required to provide in the interview the data required of a parent of a dependent student. This group of parents was under no legal requirement to participate at all in the study.

EXHIBIT 2-II

PROCEDURE FOR CLASSIFYING STUDENT STATUS BASED ON PARENT AND STUDENT RESPONSES TO KEY QUESTIONS 1/



1/ The key questions are:

- Was or will the student be claimed as an exemption in 1977, 1978, or 1979?
- Did or will the student live with the parent for more than two consecutive weeks in 1977, 1978, or 1979?
- Did or will the parent provide more than $600 support in 1977, 1978, or 1979?

2/ Proportion of cases classified.

- If the parent and student interviews resulted in different conclusions, then the following procedures were followed:

  - If the student claimed independent status but the parent had claimed the student as an exemption, then the student was determined to be dependent.

  - If the student claimed independent status but the parent had not claimed him as an exemption, the student was determined to be independent.

  - If the parent indicated that the student was independent but the student indicated that he had either lived with the parent or received support in one of the years, then the student was classified as dependent.

  - If the parent indicated that the student was independent but the student only indicated that he was claimed as an exemption in one of the years, then the student was classified as independent.

It should be noted that the decision rules only accounted for the responses to the key questions and did not consider whether the responses were documented or not. The special procedures for resolving these discrepancies were only required in 4.9 percent of the cases in the sample (not weighted).

A cross-tabulation of the SER filing status by the verification filing status (as determined by the baseline decision rules) is presented in Table 2.8. Six percent of the applicants were found to have filing status discrepancies, and slightly over 5 percent of these cases were students who filed as independent students but who were determined to be dependent. Thus, the data suggest that one in six students filing as independent may actually be dependent.

While some of these students would probably be ineligible for the program if they had filed correctly, others would probably still be entitled to awards. In the latter case, it is difficult to speculate whether their awards would be higher or lower than what they were actually awarded. The data do indicate that awards to some 70,800 students may be based on incorrect filing statuses and that these individuals received grants totaling $74 million.

Table 2.8

SER FILING STATUS BY VERIFICATION FILING STATUS

SER Filing Status	Verification Filing Status: Dependent Student	Verification Filing Status: Independent Student	
Dependent Student	Correct 65.3%	Error 0.7%	66.0%
Independent Student	Error 5.3	Correct 28.7%	34.0%
	70.6%	29.4%	100.0%

Students who are judged to have used incorrect filing statuses will be excluded from the discrepancy analysis which follows. Thus, the universe of students to which our data are applicable will decline from 1.35 million to 1.28 million.

Discrepancies In Eligibility Index And Expected Disbursements Associated With Discrepancies In Student Application Data

Estimates of the potential error in eligibility indices (EI) and expected disbursements due to potential student data error are presented in this section. In general, the EI discrepancies were estimated by first calculating an EI for each student, based on verification data, and comparing this "verification EI" to the EI on the SER on which the student was paid.

The expected disbursement discrepancy was estimated by computing the difference between the expected disbursement using verified institutional factors and parameters and using the verification EI, and the expected disbursement using the same verified institutional factors and parameters but using the EI on which the student was paid. Thus any expected disbursement discrepancy was solely due to discrepancies in the EI (which are solely due to discrepancies in applicant data).

Exhibit 2-III displays the distribution of the net effective eligibility index differences.[10/] In the Exhibit, the term "potential overaward" refers to cases where the verification EI was greater than the SER EI, while "potential underaward" refers to cases where the SER EI was greater than the verification EI. Exhibits 2-IV and 2-V display similar distributions for dependent and independent students respectively. Exhibits 2-VI through 2-VIII display the corresponding distributions of errors in expected disbursements for all students, dependent students, and independent students, respectively. Note that discrepancies in Exhibits 2-III to 2-V are expressed

---

10/ Verification EI's exceeding 1600 were set to 1601 prior to computing the EI discrepancy.

EXHIBIT 2-III

DISTRIBUTION OF NET EFFECTIVE EI ERRORS FOR ALL STUDENTS

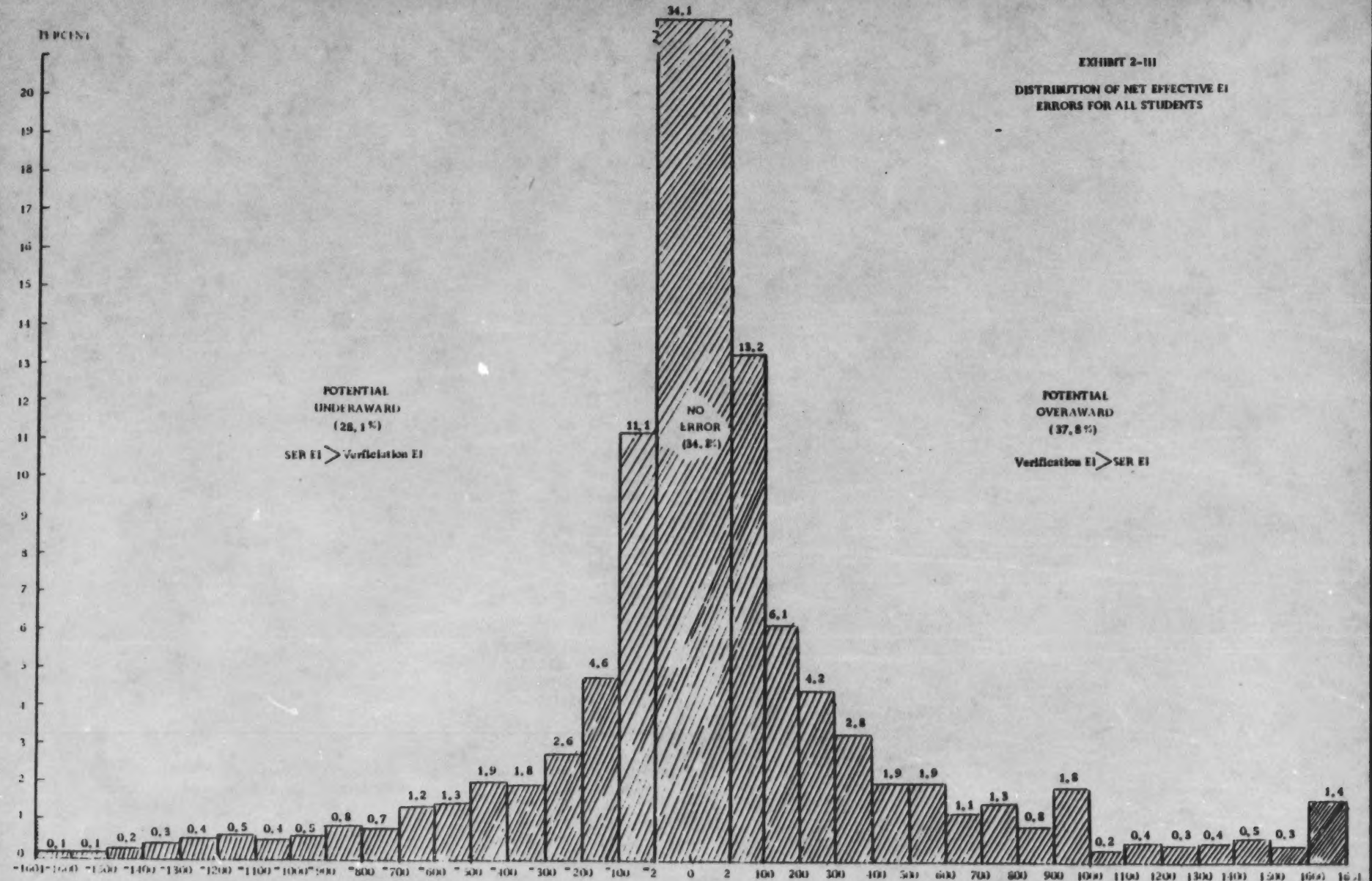
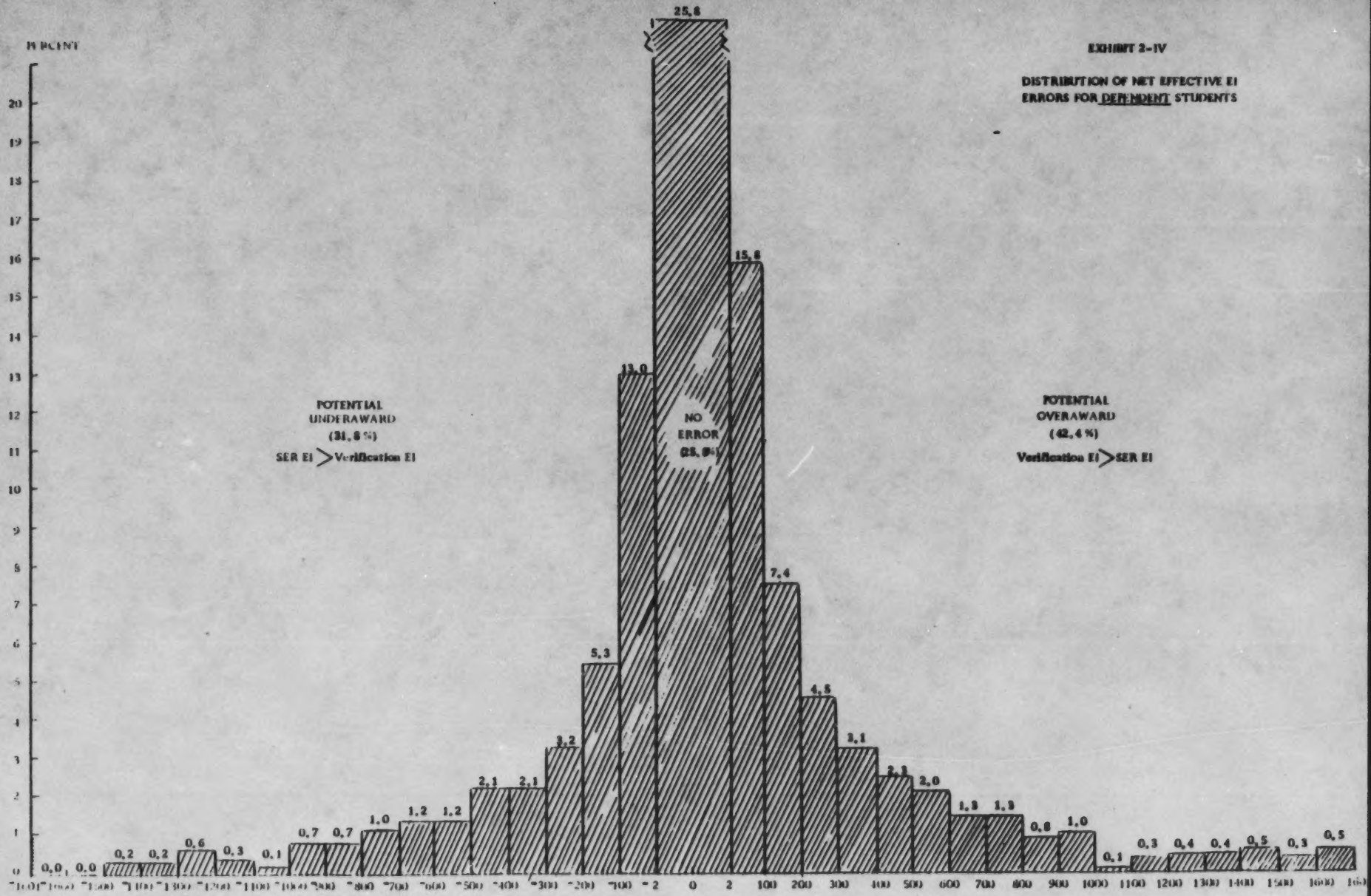


EXHIBIT 2-IV

DISTRIBUTION OF NET EFFECTIVE EI ERRORS FOR DEPENDENT STUDENTS



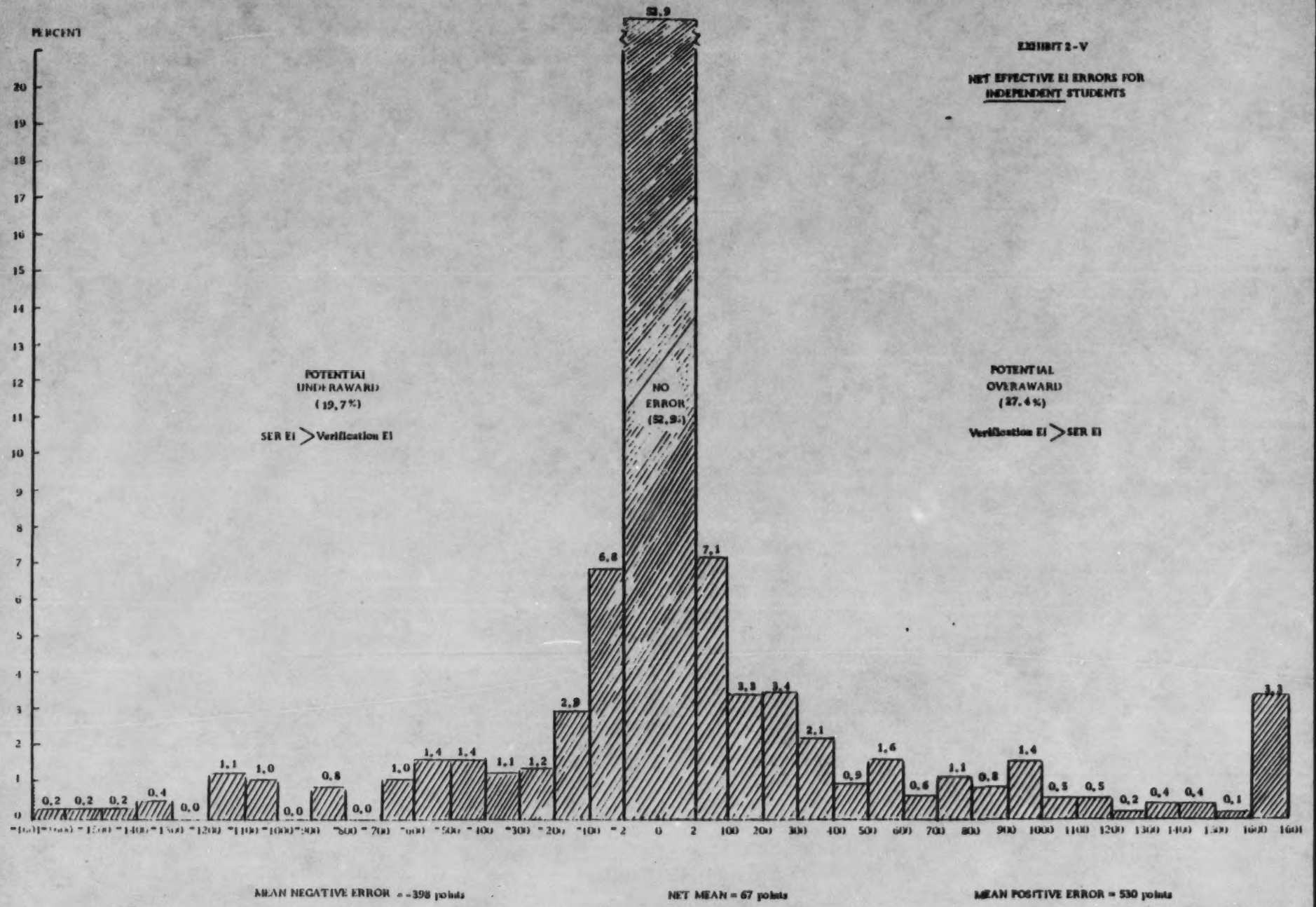

PERCENT
EXHIBIT 2-V
NET EFFECTIVE EI ERRORS FOR INDEPENDENT STUDENTS
POTENTIAL UNDERAWARD (19.7%)
SER EI > Verification EI
NO ERROR (52.9%)
POTENTIAL OVERAWARD (27.4%)
Verification EI > SER EI
52.9
7.1
6.8
3.4
3.3
2.9
2.1
1.6
1.4
1.4
1.2
1.1
1.1
1.0
1.0
1.0
0.9
0.8
0.8
0.8
0.6
0.5
0.5
0.4
0.4
0.4
0.2
0.2
0.2
0.2
0.1
0.0
0.0
0.0
0.0
0.0
MEAN NEGATIVE ERROR = -398 points
NET MEAN = 67 points
MEAN POSITIVE ERROR = 530 points

EXHIBIT 2-VI

DISTRIBUTION OF EXPECTED DISBURSEMENT ERRORS DUE TO STUDENTS, FOR ALL STUDENTS

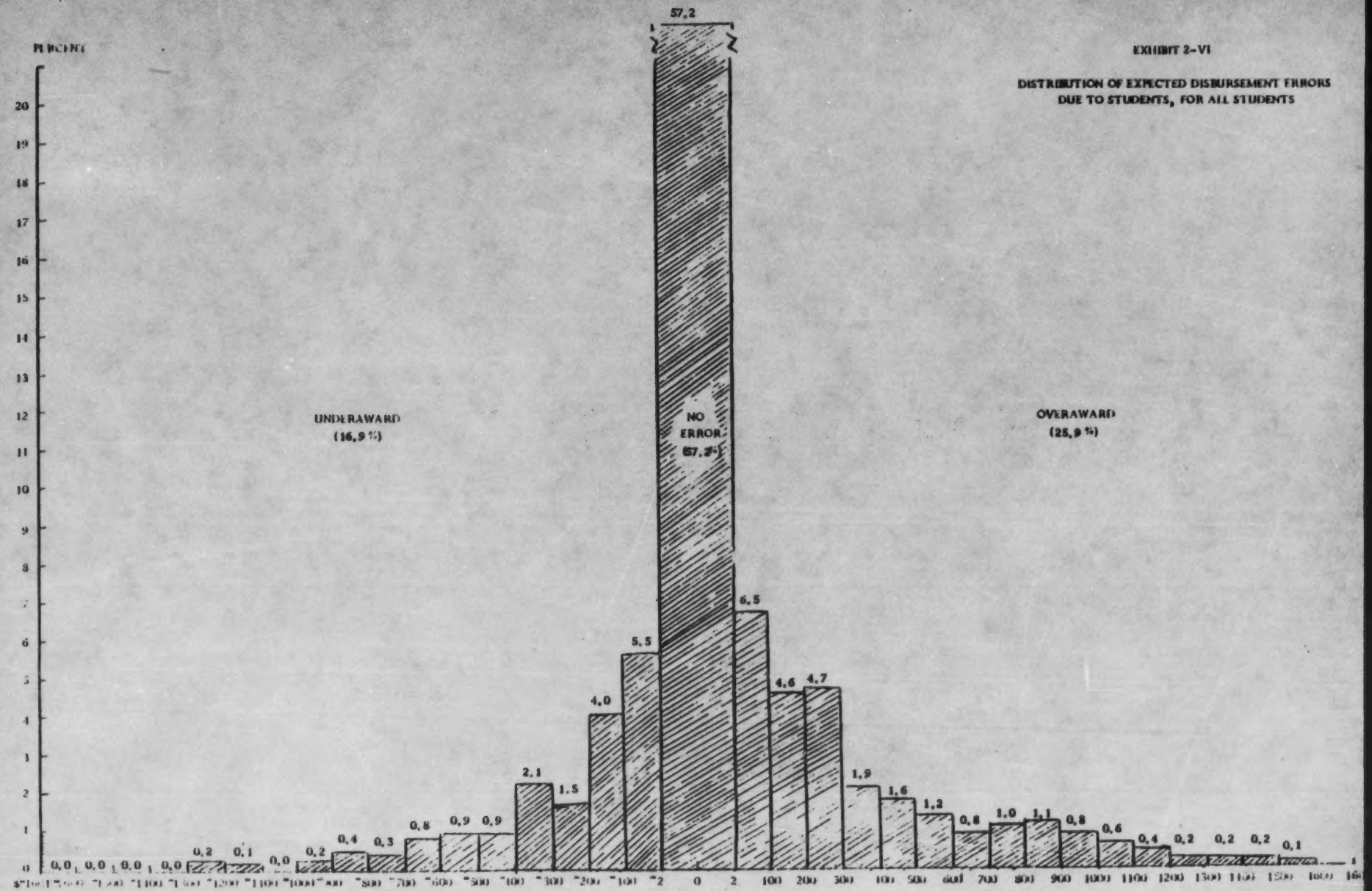
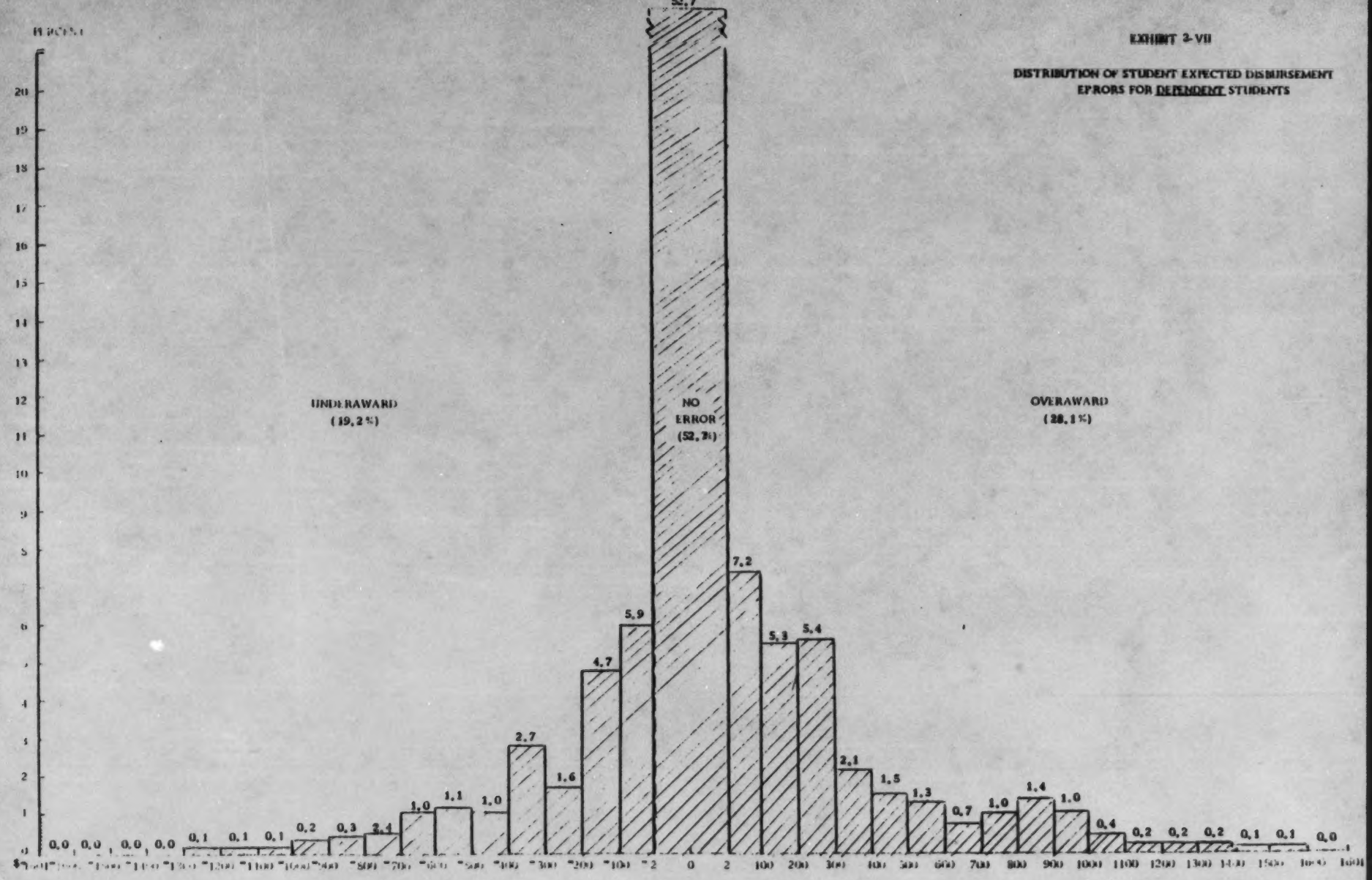


EXHIBIT 2-VII

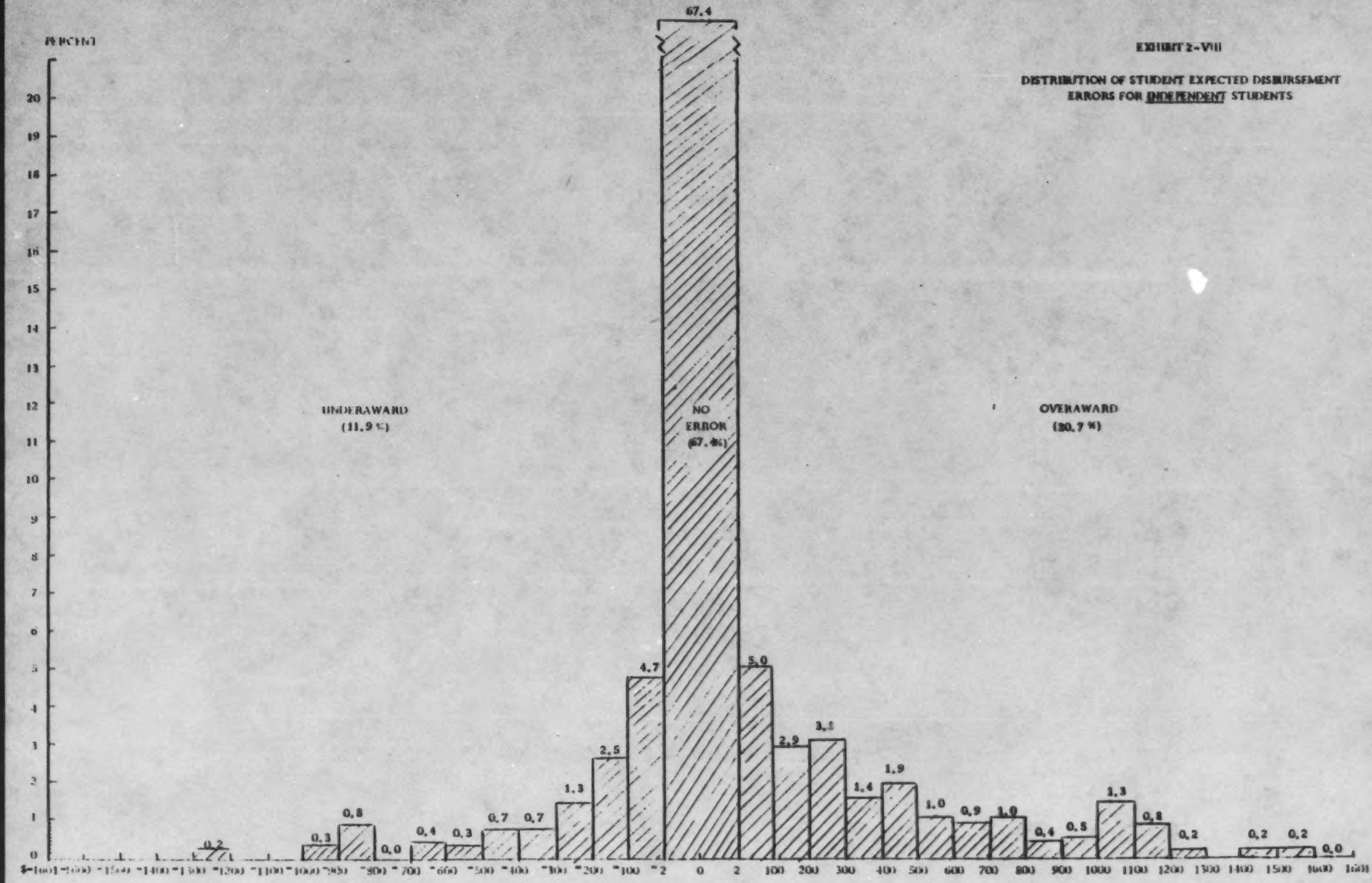
DISTRIBUTION OF STUDENT EXPECTED DISBURSEMENT ERRORS FOR DEPENDENT STUDENTS



NET MEAN = $44

EXHIBIT 2-VIII

DISTRIBUTION OF STUDENT EXPECTED DISBURSEMENT ERRORS FOR INDEPENDENT STUDENTS



in effective EI point differences, while discrepancies in Exhibits 2-VI to 2-VIII are expressed in terms of effective dollar differences in expected disbursements. Also, EI and expected disbursement differences within plus or minus two points or dollars were considered to be correct to allow for reasonable rounding error in the computations. More detailed data on the EI and expected disbursement discrepancy analyses are summarized in Tables 2.9 and 2.10.

Four types of totals are used in the description of discrepancies in the Tables and Exhibits of this section. Total overawards and total underawards refer to the total amount of dollars incorrectly spent in situations where, based on the discrepancies identified, the student was awarded too much or too little, respectively. The monetary cost to the government of the discrepancies is reported as total net overawards and is computed by subtracting underpayments from overpayments. The figures for "total dollar discrepancy," "total absolute dollar error," etc., are computed by adding underpayments and overpayments. This figure represents the volume of money flowing incorrectly in the program.

Throughout the sections on student discrepancies, the terms "discrepancy" and "error" will be used interchangeably. All estimates in these sections are ultimately based upon comparisons of verification interview data with application data.

For the statistically oriented reader, Appendix I provides estimated sampling errors for the various statistics reported in this chapter.

Overall Student Discrepancies

In reviewing the discrepancy distributions, it is notable that while all distributions were weighted toward discrepancies which tended to increase an applicant's grant, a very substantial portion of the applicants had discrepancies which decreased their grants. The high degree of symmetry in the Exhibits suggests an error-prone process (which acts to produce errors in both directions) in which a significant portion of applicants are making

Table 2.9

SUMMARY OF ELIGIBILITY INDEX DISCREPANCIES

	Number of Recipients	Percent of Universe	Absolute Discrepancies		Net Discrepancies		Positive Discrepancies		Negative Discrepancies	
			Mean 1/	Percent of Population with Discrepancy	Mean 1/	Percent of Population with Discrepancy	Mean 2/	Percent of Population with Discrepancy	Mean 2/	Percent of Population with Discrepancy
BEOG Study Universe 3/	1,282,348	100%	222	65.9%	52	65.9%	363	37.8%	302	28.1%
Filing Status										
Dependent	889,401	69.36	221	74.2	46	74.2	316	42.4	276	31.8
Independent	392,947	30.64	223	47.1	67	47.1	330	27.4	308	19.7
Multiple Data Entry Code 4/										
BEOG 5/	276,825	21.59	237	55.6	97	55.6	471	35.4	348	20.2
FFS 6/	297,396	23.19	229	70.9	53	70.9	339	41.1	290	29.8
FAF 7/	659,619	51.44	208	68.1	31	68.1	322	37.3	287	30.8
PHEAA 8/	44,913	3.50	282	64.3	42	64.3	444	36.5	433	27.8

1/ Over entire population

2/ Over those with discrepancies

3/ Estimates based on cases where filing status in interview agreed with original filing status.

4/ .28 percent of the population could not be classified

5/ BEOG - Application 1978-79 Basic Educational Opportunity Grant Program

6/ FFS - 1978-79 Family Financial Statement (American College Testing Student Assistance Program)

7/ FAF - Financial Aid Form

8/ PHEAA - 1978-79 Application for Pennsylvania Higher Education Grant and Federal Basic Education Opportunity Grant

Table 2.10

SUMMARY OF EXPECTED DISBURSEMENT DISCREPANCIES

	Number of Recipients	Percent of Universe	Absolute Discrepancies: Mean 1/	Absolute Discrepancies: Percent of Population with Discrepancies	Absolute Discrepancies: Total Dollars 2/	Net Discrepancies: Mean 1/	Net Discrepancies: Percent of Population with Discrepancies	Net Discrepancies: Total Dollars 2/	Positive Discrepancies: Mean 3/	Positive Discrepancies: Percent of Population with Discrepancies	Positive Discrepancies: Total Dollars 2/	Negative Discrepancies: Mean 3/	Negative Discrepancies: Percent of Population with Discrepancies	Negative Discrepancies: Total Dollars 2/
BEOG Study Universe 4/	1,282,348	100%	$138	42.8%	$177.1	$48	42.8%	$61.3	$359	25.9%	$119.2	$-267	16.9%	$-57.9
Filing Status														
Dependent	889,401	69.36	147	47.3	131.3	44	47.3	39.1	341	28.1	85.2	-270	19.2	-46.1
Independent	392,947	30.64	116	32.6	45.7	55	32.6	21.5	413	20.7	33.6	-259	11.9	-12.1
Multiple Data Entry Code 5/														
BEOG 6/	276,825	21.59	137	38.7	38.0	79	38.7	22.0	409	26.5	30.0	-238	12.2	-8.0
FFS 7/	297,396	23.19	127	40.2	37.8	52	40.2	15.4	367	24.4	26.6	-239	15.8	-11.2
FAF 8/	659,619	51.44	139	45.2	91.8	32	45.2	20.8	328	26.0	56.3	-280	19.2	-35.5
PHEAA 9/	44,913	0.50	203	51.3	9.1	57	51.3	2.5	435	29.8	5.8	-339	21.5	-3.3

1/ Over entire population

2/ In millions

3/ Over those with descrepancies

4/ Estimates based on cases where filing status in interview agreed with original status.

5/ 0.28 percent of the population could not be classified

6/ BEOG - Application 1978-79 Basic Education Opportunity Grant Program

7/ FFS - 1978-79 Family Financial Statement (American College Testing Student Assistance Program

8/ FAF - Financial Aid Form

9/ PHEAA - 1978-79 Application for Pennsylvania Higher Education Grant and Federal Basic Education Opportunity Grant

essentially random errors, or errors slightly in their favor, while only a small number may be guilty of significant fraud or abuse.

Overall, 65.9 percent of the population had discrepancies in their EIs; 37.8 percent had verification EIs which were greater than the SER EIs, resulting in potential overawards; and 28.1 percent had verification EIs less than the SER EIs, resulting in potential underawards. Not all of these EI differences translated directly into discrepancies in expected disbursement, since 57.2 percent of the population had no discrepancies in expected disbursement, 25.9 percent had discrepancies indicating overawards, and 16.9 percent had discrepancies indicating underawards. The average overaward ($359) was higher than the average underaward ($267).

Translating these figures into total dollars awarded, approximately $177 million were incorrectly awarded, with approximately $119 million being overawarded and $58 million underawarded. The total net overaward was $61 million.

Independent/Dependent

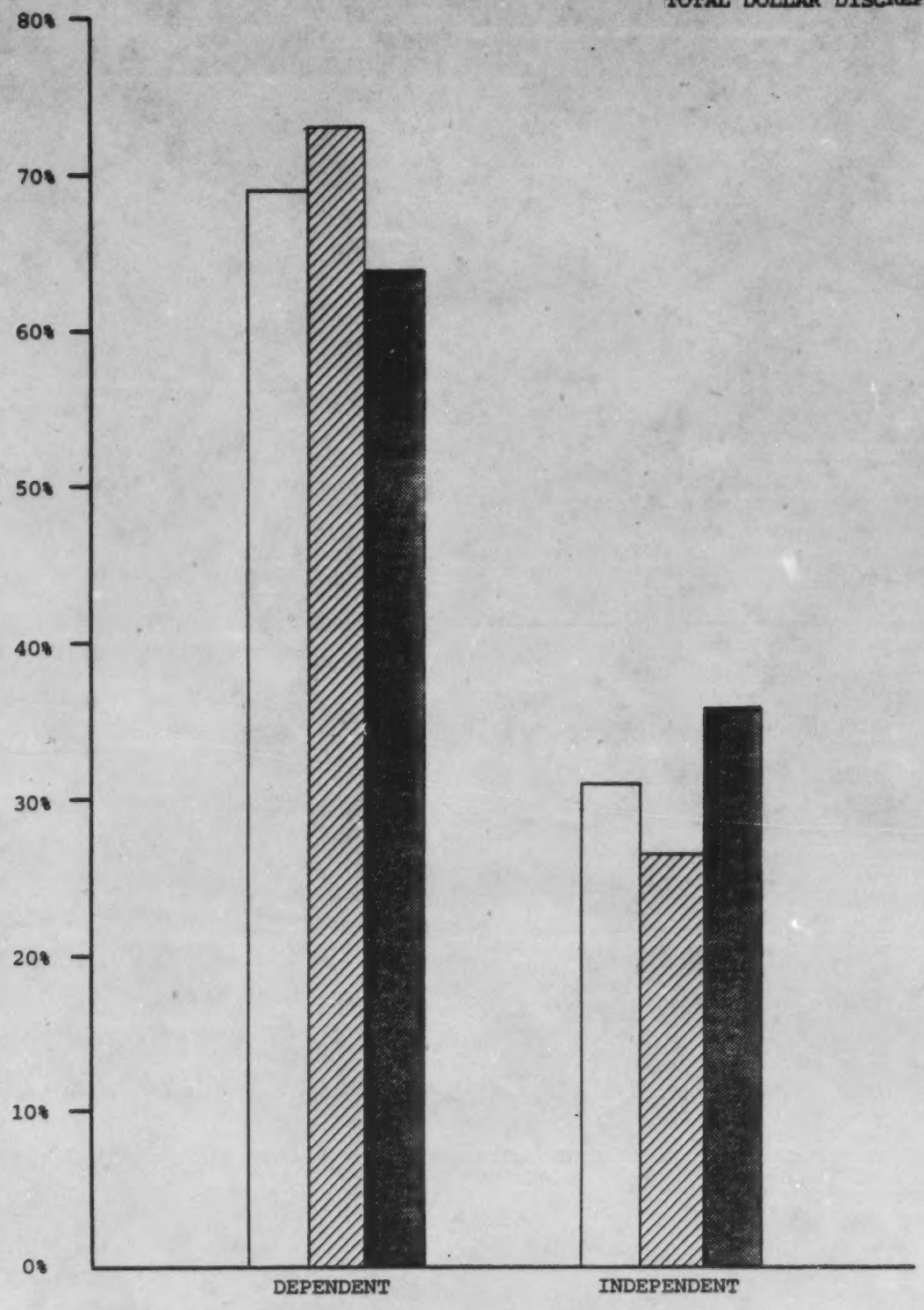
When the population was divided by independent/dependent filing status, it was found that dependent students had a higher absolute dollar error rate ($147) than independent students ($116), so that they accounted for a slightly disproportionate share of total dollar errors, as shown in Exhibit 2-IX. When examined in terms of positive and negative discrepancies, the dependent student was found to have a higher likelihood of making both positive and negative errors. But, because a higher proportion of independent student discrepancies indicates overpayments and because the average overpayment was larger and the average underpayment smaller, the independent students received a disproportionate share (35 percent) of net overaward dollars relative to dependent students.

Application Type

When the population was divided by application method (i.e., through the Federal application (BEOG), CSS Financial Aid Form (FAF), ACT's

EXHIBIT 2-IX

SUMMARY OF INDEPENDENT/DEPENDENT
TOTAL DOLLAR DISCREPANCY SHARES



Family Financial Statement (FFS), or the State of Pennsylvania's PHEAA application (PHEAA), the most frequently used application was found to be the FAF (51 percent of the population), followed by the FFS (23 percent), BEOG (21 percent), and PHEAA (4 percent). Total dollars in discrepancy by source of application closely paralleled the relative sizes of these groups.

When total dollars in discrepancy were divided by positive and negative discrepancies, the profile changed. As shown in Exhibit 2-X, applicants using the BEOG accounted for 36 percent of net overawards ($22 million of $61.3 million) principally because they had the highest average overaward ($409), the highest proportion of applicants with overawards (26.5 percent), the lowest average underaward ($238), and the lowest proportion with underawards (12.2 percent) of the three major types of applications. Further, the FFS population accounts for a slightly disproportionate share (25 percent) of net overawards, since higher average overawards ($368) and lower average underawards ($239) were made to this group than to FAF applicants. PHEAA applicants have been excluded from this discussion due to the small sample involved; nonetheless it should be noted that the highest discrepancy rates and amounts in all categories were estimated for this group.

Type Of School

The third analysis of student discrepancies examined whether students who attended different types of institutions exhibited different discrepancy rates. (It should be noted that any difference detected is not attributable to institutional error). The data are summarized in Table 2.11.

When examined by type of school, almost two-thirds of the recipients attended four-year schools and about 30 percent attended two year schools. Total dollars in error followed these distributions closely, although students in four-year schools had somewhat higher dollar errors, and students in two-year schools lower dollar errors,[11/] than the overall average.

11/ This effect may be due to differentials in institutional cost, as a given EI error will have a greater expected disbursement effect if the cost of education is higher.

EXHIBIT 2-X

SUMMARY OF MULTIPLE DATA ENTRY
APPLICANTS' TOTAL DOLLAR DISCREPANCY SHARES

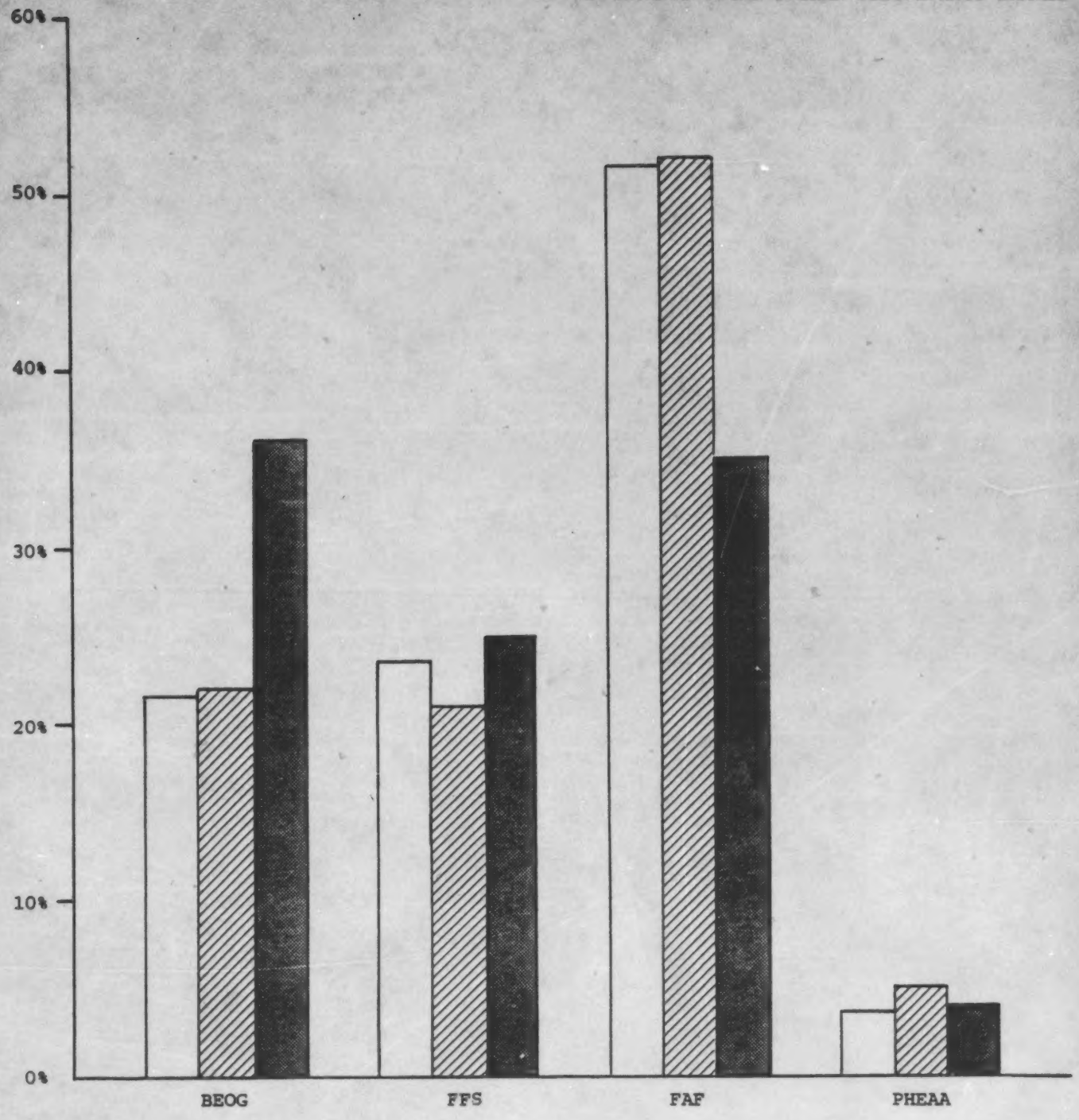


Table 2.11

STUDENT EXPECTED DISBURSEMENT ERRORS BY TYPE AND CONTROL OF INSTITUTION

	Number of Recipients	Percent of Recipients	ABSOLUTE DISCREPANCIES 1/ Mean	Percent of Population with Discrepancies	2/ Total Dollars	Percent of Total Absolute Discrepancy	NET ERRORS 1/ Mean	Percent Population in Error	2/ Total Dollars	OVERAWARDS 3/ Mean	Percent Population in Error	2/ Total Dollars	UNDERAWARDS 3/ Mean	Percent Population in Error	2/ Total Dollars
BEOG Universe 4/	1,282,348	100.0%	188	42.8%	177.1	100%	$48	42.8%	$61.3	$359	25.9%	$119.2	$-267	16.9%	$-57.9
Type of institution 5/															
. 4-year	829,778	64.24	147	46.8	121.4	68.5	42	46.8	34.8	346	27.4	78.1	-271	19.4	-43.3
. 2-year	371,150	28.94	114	32.2	42.2	23.8	59	32.2	21.8	410	21.0	32.0	-346	11.2	-10.2
. Other than 4-or 2-year	87,420	6.82	157	50.3	13.7	7.7	54	50.3	4.7	323	32.7	9.2	-292	17.6	-4.5
Control of institution 5/															
. Public	904,106	70.50	124	36.7	111.9	63.2	47	36.7	42.1	380	22.4	77.0	-270	14.3	-34.9
. Private	281,117	21.92	189	60.7	53.2	30.0	41	60.7	11.6	341	33.8	32.4	-275	26.9	-20.8
. Proprietary	97,125	7.57	124	48.2	12.0	6.8	73	48.2	7.2	281	35.1	9.6	-193	13.1	-2.4

1/ Over entire population

2/ In millions

3/ Over those with discrepancies

4/ Includes cases where verification filing status agrees with SER filing status

5/ Type and control are determined by PIM's classifications

As shown in Exhibit 2-XI, students in four-year schools and "other" students were found to have discrepant awards significantly more often than students in two-year schools. Nevertheless, the average overaward discrepancy was larger and the average underaward discrepancy was smaller for students in two-year schools relative to other students, so that the former received a disproportionate share of net overawards.

Control Of School

When examined by control of schools, the distribution of total dollar errors indicated that total dollars in error were disproportionately large for private school students.[12/] The pattern of over- and underawards varied significantly. Public and private school students had similar average overawards and underawards and these averages were higher than those for proprietary school students. While private school students had discrepancies more frequently than did public school students, the discrepancies were positive and negative in similar proportions to public school students, so that, on balance, the average net overawards were similar ($41 versus $47). In contrast, proprietary school students had overaward discrepancies three times as often as underaward discrepancies and as high an overaward rate as private schools. Taken together, the average net overaward was much higher for students of proprietary schools ($73) than for public or private school students (mid $40's). Exhibit 2-XII demonstrates that the students of proprietary schools were associated with a disproportionate share of net overawards.

Student Error By Income Level

As shown in Table 2.12, student discrepancies were analyzed by the level of income reported on the SER. The proportion of applicants with discrepancies rose fairly steadily from 20 percent for zero-income applicants

---

12/ Again, cost-of-education differentials may be partially responsible.

EXHIBIT 2-XI

SUMMARY OF TOTAL DOLLAR DISCREPANCY SHARES
BY TYPE OF SCHOOL ATTENDED

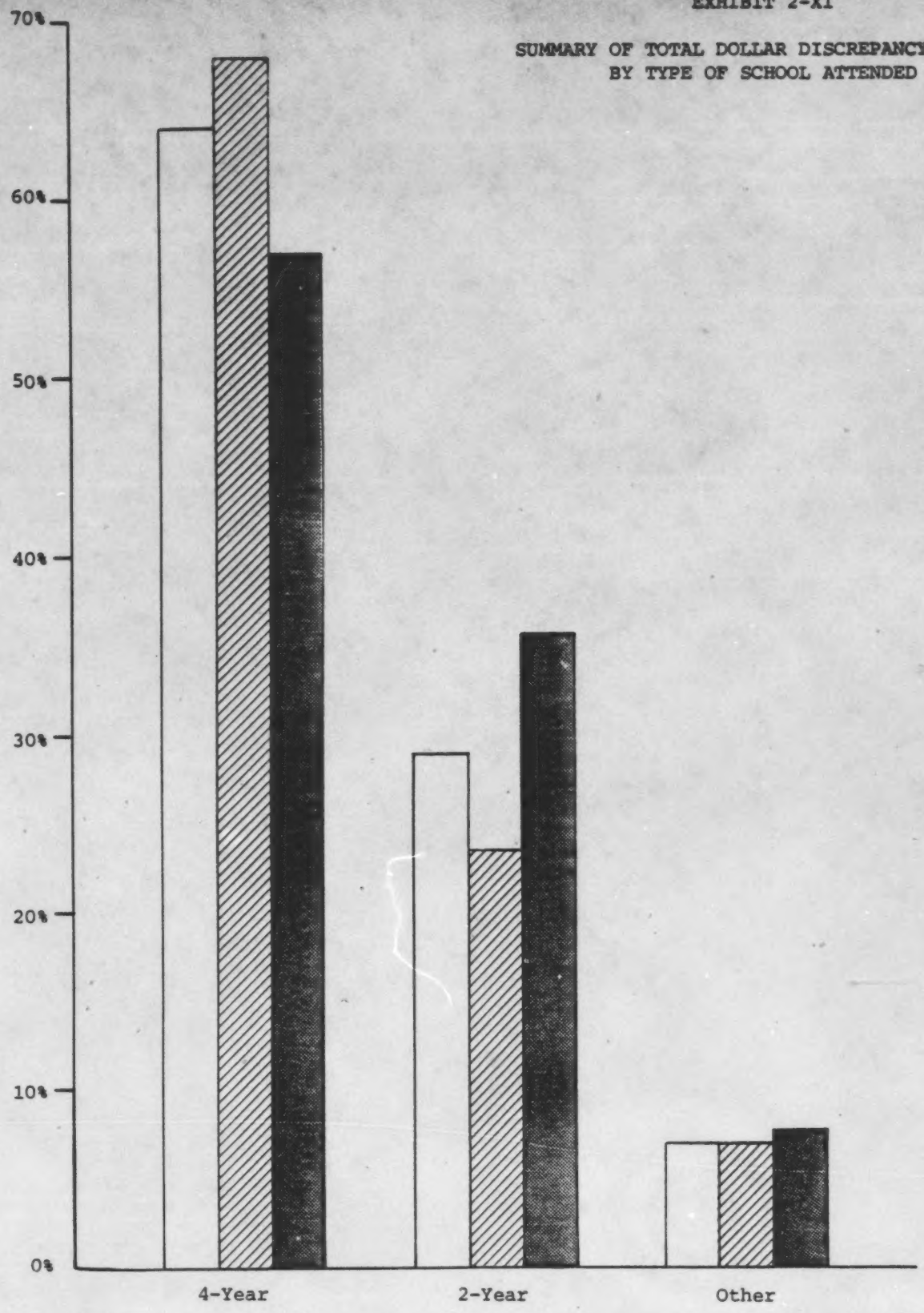


EXHIBIT 2-XII

SUMMARY OF TOTAL DOLLAR DISCREPANCY SHARES
BY CONTROL OF SCHOOL ATTENDED

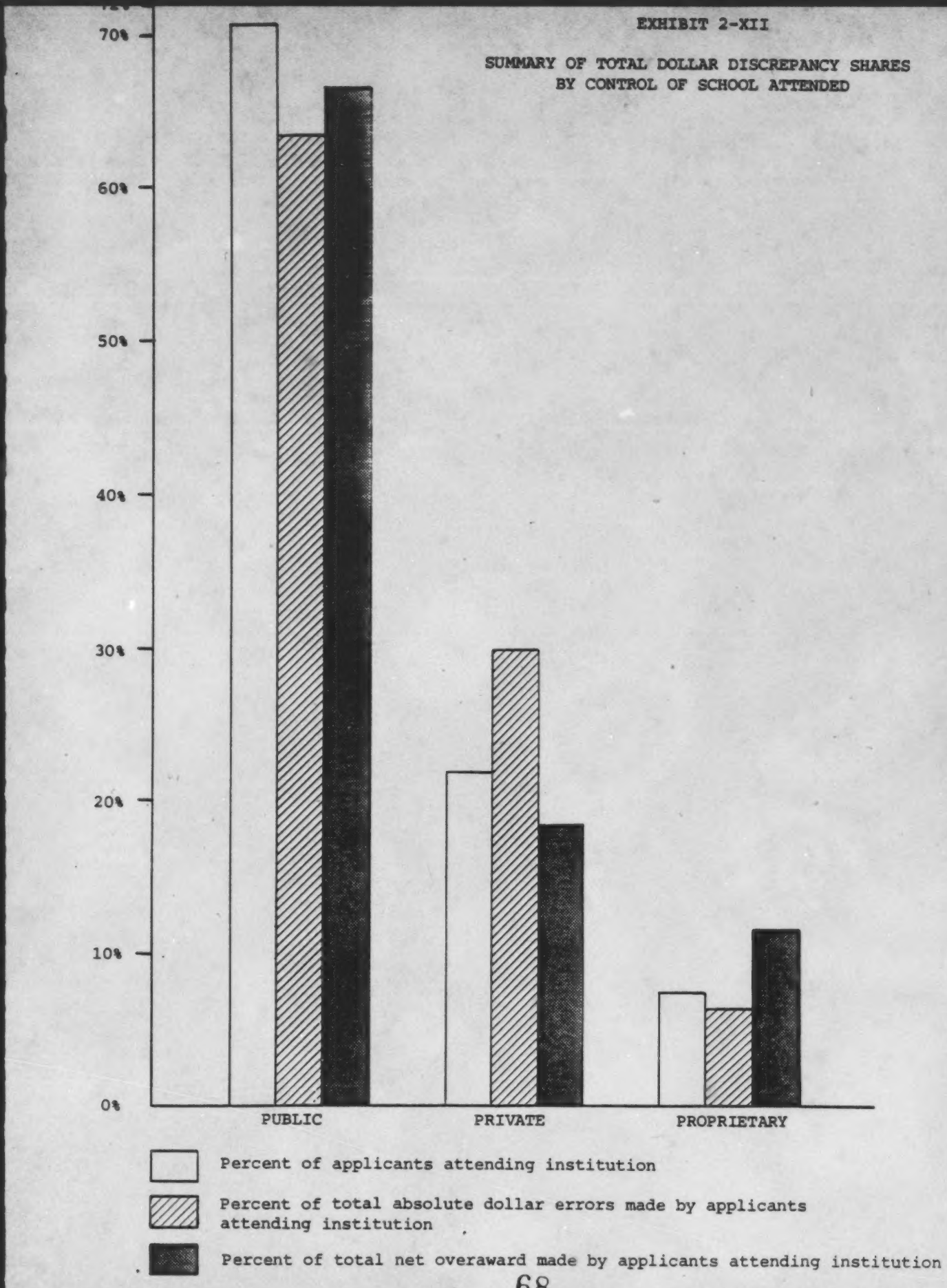


Table 2.12: EXPECTED DISBURSEMENT DISCREPANCIES BY INCOME LEVEL

Income level[1]	Number of Recipients	Percent of Recipients	ABSOLUTE ERRORS				NET OVERAWARDS				OVERAWARDS			UNDERAWARDS		
			Mean[2]	Percent in Error	Dollars[3]	Percent of Dollars	Mean[2]	Percent in Error	Dollars[3]	Percent of Net Overaward Dollars	Mean[4]	Percent in Error	Dollars[3]	Mean[4]	Percent in Error	Dollars[3]
$0	305,527	24.0%	$ 89	20.1%	$27.0	15%	$ 35	20.1%	$10.8	19%	$557	11.1%	$18.9	$294	9.0%	$8.1
$1 - $2,000	133,747	10.5	82	18.5	11.0	6	36	18.5	4.8	8	325	18.1	7.9	221	10.4	3.1
$2,001 - $4,000	125,300	9.8	116	40.6	14.6	8	27	40.6	3.4	6	359	20.1	9.0	218	20.5	5.6
$4,001 - $6,000	134,324	10.5	127	36.3	17.1	10	44	36.3	5.9	10	382	22.5	11.5	297	13.8	5.6
$6,001 - $8,000	140,058	11.0	146	43.7	20.5	12	42	43.7	5.9	10	329	28.7	13.2	349	15.0	7.3
$8,001 - $10,000	117,840	9.3	190	58.7	22.4	13	47	58.7	5.6	9	351	34.0	14.0	288	29.7	8.4
$10,001 - $12,000	95,680	7.5	175	61.8	16.7	10	28	61.5	2.7	4	300	33.8	9.7	263	27.7	7.0
$12,001 - $15,000	122,211	9.6	187	65.0	22.9	13	81	65.0	9.9	16	341	39.5	16.4	208	25.5	6.5
Over $15,000	99,199	7.8	235	77.9	23.3	13	115	77.9	11.5	19	313	36.1	17.4	273	21.8	5.9

1/ AGI on SER

2/ Over entire population

3/ in millions

4/ Over those with discrepancies

to almost 80 percent for applicants with incomes exceeding $15,000. Not only did the proportion with discrepancies increase, the average net overpayment also generally increased as income level rose; from $35 at zero income to $115 at over-$15,000 of income. Not surprisingly, the 17.4 percent of the population with incomes over $12,000 accounted for 26% of total dollars spent in error and 35 percent of total net overawards.

The overaward/underaward data indicate that the average overaward/underaward for those with overawards/underawards does not vary in any systematic way with regard to income. Rather, it is the steeper rise with increasing income of the proportion of applicants receiving overawards (11 percent to 56 percent) relative to a similar but more gradual rise in the proportion with underawards (from 9 percent to 22 percent) which accounts for the income effects observed in total net overawards and total award discrepancies.

SER Elements Most Frequently Misreported Which Result In The Greatest Impact On Award Error

The amount of a student's Basic Grant is based, in part, on the financial strength of a student and his or her family. The Eligibility Index[13/] is derived from a formula for measuring financial strength, which varies for dependent and independent students. In effect, the Eligibility Index is a measure of the family's ability to contribute toward the cost of postsecondary education. To compute the EI, 21 different data elements are required and an error in any of these can result in an error in the EI. Table 2.13 lists the SER elements in the order in which they appear on the BEOG application.

Three separate but interrelated analyses of the SER element errors were carried out. First, each element was verified in the student/parent interview and compared with the corresponding element on the application

---

13/ See 1978-79 Determination of Eligibility Index, Basic Education Opportunity Grant Program for a detailed explanation of the procedures for calculating the EI.

Table 2.13

IMPACT OF INDIVIDUAL SER ELEMENT DISCREPANCIES ON ELIGIBILITY INDEX

	IMPACT ON EFFECTIVE ELIGIBILITY INDEX						
	Net Error			Positive Error		Negative Error	
	Mean Error	Rank Order	Percent Population in Error	Mean Error	Percent Population in Error	Mean Error	Percent Population in Error
Applicant Characteristics							
Current Marital Status	0.71 Pts.	11	1.0%	251.95 Pts.	0.7%	-320.75 Pts.	0.3%
Total Size of Household	12.03	2	10.9	325.66	6.9	-258.89	4.0
Number in Postsecondary Education	9.54	5	8.3	245.51	6.0	-217.33	2.3
Income							
1977 Nontaxable Income	10.37	4	23.5	428.92	11.2	-306.60	12.3
1977 Adjusted Gross Income	15.44	1	19.4	407.76	11.0	-348.70	8.4
Expenses							
1977 U.S. Income Tax Paid	-7.77	21	18.4	73.58	8.3	-137.22	10.1
Medical-Dental Expenses	-0.93	18	1.3	62.69	0.6	-173.78	0.7
Casualty-Theft loss	-1.68	20	0.6	50.27	0.2	-383.51	0.4
Unreimbursed Elementary and Secondary School Tuition	-0.35	16	7.2	82.81	2.8	-58.96	4.4
Assets							
Home-Present Market Value	10.91	3	11.6	318.21	7.0	-248.63	4.6
Home-Debt	4.35	7	7.6	141.54	4.6	-66.92	3.0
Investments and Real Estate-Present Market Value	0.52	14	3.1	306.12	1.3	-169.97	1.8
Investments and Real Estate-Debts	1.02	9	1.1	306.85	0.5	-74.11	0.6
Cash, Savings, and Other Resources	0.89	10	14.3	55.31	9.0	-76.95	5.3
Business-Present Market Value	1.07	8	0.2	768.24	0.1	-132.00	0.2
Business-Debt	-0.49	17	0.1	--	0.0	-415.01	0.1
Farm-Present Market Value	0.60	13	0.5	808.19	0.2	-434.69	0.3
Farm-Debt	0.62	12	0.6	199.73	0.4	-51.26	0.2
Dependent Student's Other Resources	4.87	6	30.5	64.75	19.2	-66.73	11.3
VA							
Veteran's Benefit Amount	0.30	15	1.3	27.78	0.6	-53.32	0.7
Veteran's Benefit Months	-0.64	19	1.5	257.49	0.4	-229.87	1.1

history file for the transaction corresponding to the SER on file in the institution during the time of data collection. Frequency distributions of the differences between the verification elements and the SER elements were constructed (except for marital status, in which case the verification marital status was cross-tabulated with the SER marital status). The distributions of errors for each SER element, along with a few additional elements collected on the BEOG application and maintained on the application history file, are presented in Appendix A. (See Tables A-9 through A-31).

A review of the tables in Appendix A indicates that the discrepancies tend to have a fairly symmetrical distribution, that is, discrepancies imply both overawards and underawards almost equally often. A second characteristic is that the average discrepancy almost always implies an average overaward. In general, the tails of the discrepancy distributions are slightly heavier on the overaward side than on the underaward side.

Because the impact of individual element discrepancies on the EI or expected disbursement cannot be determined by examining the discrepancy distributions, a procedure was developed to estimate EI errors associated with such discrepancies. To accomplish this, a single verification element was substituted into the EI calculation for the corresponding SER element, with the remaining elements set equal to those on the SER application history file. The EI was recalculated and the difference taken with the EI as it appears on the application file. A distribution of the impact of individual SER element errors on the EI was then constructed. The same procedure was repeated for each of the 21 SER elements. Table 2.13 displays the net effective Eligibility Index error resulting from the substitution of each of the 21 SER elements. If one assumed that the verification element was absolutely accurate,[14/] then the difference between the EI using the

---

14/ Since not all values of the verification elements are documented, it is not possible to claim that such a standard has been met.

verification element and the original EI is the amount that the EI would change if there were no error in that element.

The analysis of the impacts of errors in individual SER elements was carried one step further to determine the impact that errors in each SER element had upon errors in the expected disbursement. Thus, the verification EI based on each individual verification element substitution was then used to calculate a verification expected disbursement. The difference was taken between the verification expected disbursement based on the individual element substitution and the SER expected disbursement as already defined. The distribution of these errors was then constructed and analyzed. Table 2.14 displays the errors due to the impact of each verification element on the expected disbursement. Mean and total overawards, underawards, net overawards and absolute dollar discrepancies are displayed and ranked across the 21 elements. The errors due to the impact of each separate element are not additive since errors in different elements can counteract and/or compound each other. This means, for example that one cannot estimate the impact of correcting errors in two elements by adding the impacts associated with each one. For example, the impact of eliminating error in home value and home debt cannot be derived (accurately) by adding the separate impacts.

The 10 SER elements errors resulting in the greatest dollar discrepancies are listed in Table 2.15.

As would be expected, the order of the mean errors in EIs due to individual SER elements is closely related to the order of net overawards. It is interesting, however, that there is also a close parallel between those elements most often associated with overawards and those elements most often associated with underawards. In other words, those elements resulting in high positive errors also tended to result in high negative errors, indicating that certain items are intrinsically error-prone.

Table 2.14

IMPACT OF INDIVIDUAL SER ELEMENT DISCREPANCIES ON EXPECTED DISBURSEMENTS

	Absolute Award Error				Net Award Error				Overawards				Underawards			
	Mean 2/	Percent of Population in Error	Total Amount 1/	Rank	Mean 2/	Percent of Population in Error	Total Amount 1/	Rank	Mean 3/	Percent of Population in Error	Total Amount 1/	Rank	Mean 3/	Percent of Population in Error	Total Amount 1/	Rank
Applicant Characteristics																
Current Marital Status	$1.35	0.6%	$0.5	20	$0.76	0.6%	$1.0	11	$252.31	0.4%	$1.3	13	$-146.98	0.2%	$-0.4	18
Total Size of Household	17.91	7.2	25.0	4	7.07	7.2	9.1	5	277.54	4.5	31.2	4	-200.61	2.7	-6.9	5
Number in Postsecondary Education	16.04	5.9	20.6	5	8.73	5.9	11.2	4	294.93	4.2	15.9	5	-214.84	1.7	-4.7	7
Income																
1977 Nontaxable Income	52.56	16.1	67.4	1	13.23	16.1	17.0	1	406.01	8.1	42.2	1	-245.77	8.0	-25.2	1
1977 Adjusted Gross Income	42.80	12.5	54.9	2	13.14	12.5	16.9	2	376.96	7.6	35.9	3	-302.49	4.9	-19.0	2
Expenses																
1977 U.S. Income Tax Paid	13.36	10.5	17.1	6	-4.02	10.5	-5.2	21	95.31	4.7	6.0	8	-155.15	5.6	-11.1	3
Medical-Dental Expenses	1.11	1.0	1.4	17	-0.40	1.0	-0.5	17	88.53	0.4	0.5	18	-125.34	0.6	-1.0	13
Casualty-Theft Loss	0.83	0.4	1.5	16	-0.71	0.4	-1.0		33.06	0.1	0.0	20	-264.84	0.3	-1.0	12
Unreimbursed Elementary and Secondary School Tuition	3.15	3.2	4.0	11	-0.73	3.2	-0.9	19	100.77	1.2	1.6	11	-96.81	2.0	-2.5	10
Assets																
Home-Present Market Value	22.82	9.0	33.1	3	9.26	9.0	11.9	3	324.79	5.4	22.5	3	-229.89	3.6	-10.6	4
Home-Debt	6.96	3.7	8.9	7	3.88	3.7	5.0	6	225.80	2.4	6.9	7	-118.35	1.3	-2.0	11
Investments and Real Estate-Present Market Value	1.53	2.5	7.4	9	1.29	7.5	1.7	8	354.26	1.0	4.5	10	-150.23	1.5	-2.9	9
Investments and Real Estate-Debts	7.48	0.9	1.6	15	0.48	0.9	0.6	12	292.71	0.3	1.1	15	-66.56	0.6	-0.5	17
Cash, Savings, and Other Resources	6.43	6.2	8.2	8	1.05	6.2	1.4	9	91.21	4.1	4.8	9	-127.95	2.1	-3.4	8
Business-Present Market Value	1.30	0.3	1.7	13	0.95	0.3	1.2	10	1,121.12	0.1	1.4	12	-87.46	0.2	-0.2	19
Business-Debt	0.45	0.2	0.6	19	-0.45	0.2	-0.6	18	-	0.0	0.0	21	-226.72	0.2	-0.6	16
Farm-Present Market Value	1.64	0.4	2.1	12	0.23	0.4	0.3	14	466.78	0.2	1.2	14	-352.08	0.2	-0.9	14
Farm-Debt	0.52	0.5	0.7	18	0.31	0.5	0.4	13	140.03	0.3	0.5	17	-52.97	0.2	-0.1	21
Dependent Student's Other Resources	11.90	13.4	6.7	10	3.00	13.4	3.8	7	85.61	8.7	9.6	8	-94.71	4.7	-5.7	6
VA																
Veteran's Benefit Amount	0.30	0.6	0.4	21	0.03	0.6	0.0	16	55.88	0.3	0.2	19	-44.79	0.3	-0.2	20
Veteran's Benefit Months	1.32	0.9	1.7	13	0.10	0.9	0.1	15	177.75	0.4	0.9	16	-121.40	0.5	-0.8	15

1/ In millions of dollars
2/ Over entire population
3/ Over those in error

Table 2.15

Discrepancies in SER Elements with Greatest Impact on Disbursements

Rank	Element	Total Absolute Dollars in Discrepancy 1/
1	1977 Nontaxable Income	$67.4
2	1977 Adusted Gross Income	54.9
3	Home Value	33.1
4	Household Size	23.0
5	Number in Postsecondary Education	20.6
6	1977 Income Taxes Paid	17.1
7	Home Debt	8.9
8	Cash, Savings	8.2
9	Investments, Real Estate Value	7.4
10	Dependent Student's Other Resources	6.7

1/ In millions. Absolute total of positive and negative discrepancies--not netted out.

It is also interesting that only five of the 21 elements had errors which resulted in net underawards: 1977 U.S. income tax paid, medical/dental expenses, casualty/theft loss, unreimbursed elementary and high school tuition, and business--unpaid mortgage principal or debts. The net underaward for all but one of the elements (1977 U.S. income tax paid) was less than $1 million. All five of these items represent potential or actual expenses rather than income or assets.

It is not surprising that errors in nontaxable income and adjusted gross income have the highest impact on errors in expected disbursement, since income variables are weighted heavily in the EI computation. Likewise, since the number of household members enrolled in postsecondary education has a direct bearing on the multiple student rate which determines the expected family contribution, it is not surprising that errors in this element also have a large impact on the award. Furthermore, errors in family size can have a large impact since family size directly affects the family size offset of income in the EI computation.

The reasons for the large impacts of errors in home and investment equity were not apparent since, in effect, only 5 percent of the amount of such equity in excess of $17,000 is included in the EI computation. It should be noted that home equity is a function of both the present market value of the home and the unpaid mortgage or debts; likewise for investment, farm, and business equity. To explore the issue further an analysis of the amount of the EI derived from such equity was conducted. Appendix D describes the analysis for a number of SER elements, including the asset elements. The analysis was conducted by determining the average impact on the EI of setting individual elements to zero. Using the application history data for the BEOG Quality Control Sample, home equity and investment equity were found to have substantial impacts on the EI computation when set to zero, as presented in Table 2.16.

Since the removal of home equity has the impact of reducing the EI by 48 points on the average for all cases and 114 points for those cases

Table 2.16

SUMMARY OF EFFECT ON EI OF REMOVING
VARIOUS EQUITY COMPONENTS

	All Cases	Cases Reporting Nonzero Values
Home Equity	-48 points	-114 (42%)*
Investment Equity	-5	-82 (6%)

* Percent of sample

reporting a nonzero home equity, it is clear that the asset reserve[15/] is exceeded by many applicants and that many errors in these estimates will directly affect the EI. The same observation holds true for investment equity.

(3) Reasons For Observed Errors As Perceived By Students And Parents

In the previous section, errors in the application items were discussed and ordered on the basis of their impact on expected disbursements. In this section, the perceptions of applicants concerning their difficulty in supplying the various data are described: applicants were asked if they had trouble filling out particular items on the grant application and, if so, what problem(s) they had (see Table 2.17).

The most obvious feature of the responses is that relatively few persons indicated that they had "trouble" with the various application items. No more than 20 percent of the parents and 25 percent of the students indicated difficulty with any single SER element. And, except for two elements, no more than 10 percent of either parents or students indicated any difficulty with any SER element. The results are particularly interesting in that the "trouble question" was only asked of people who indicated they had a particular type of asset, or a particular type of expense or income. Thus, the percentages are not diluted by persons responding for whom the question was not applicable.

The proportions citing trouble with the items would seem to be rather low, given that the item discrepancy rates are most frequently in the 20-30 percent range. One possible explanation is that the respondents were not aware that they were misinterpreting items on the questionnaire, and did not, therefore, consider themselves to have had any trouble completing the item. (Respondents were not confronted with discrepancies during the interview.)

15/ The asset reserve has been increased to $25,000 in the 1979-80 award period.

Table 2.17

MOST DIFFICULT ITEMS TO SUPPLY ON APPLICATION [1]

Student SER Element	Percent Citing	Impact [2] Rank	Percent [3] in Error	Parents SER Element	Percent Citing	Impact [2] Rank	Percent [3] in Error
Market Value of Investment	25.3%	9	8	Market Value of Farm	19.4%	12	3
Market Value of Home	5.2	3	35	Market Value of Home	9.1	3	35
Nonreimbursed Medical/Dental Expenses	4.3	17	52	Farm Debt	7.8	18	3
Adjusted Gross Income	4.2	1	43	Value of Investments	7.0	9	8
Applicant/Spouse Income	3.1	-	-	Market Value of Business	5.7	13	4
Taxes Paid	2.6	6	32	Unreimbursed Educational Costs	5.1	11	15
Home Debt	2.3	7	30	Business Debts	5.0	19	3
Household Size	1.7	4	21	Adjusted Gross Income	4.2	1	43
Itemized Deductions	1.4	-	19	Fathers/Mother's Income	3.8	-	-
Casualty/Theft Loss	1.1	16	6	Taxes Paid	3.8	6	32

1/ "Trouble question" on assets/debts was asked only of person who claimed ownership of that particular type of asset. For example, questions relating to income tax forms were asked only of 1977 filers.

2/ Impact based upon total dollars in discrepancy.

3/ Of total population.

Only four of the 10 SER elements with the greatest total dollar impacts from Table 2.15 have been listed as elements with which applicants have problems. The four are home value, investment value, taxes paid, and adjusted gross income.

Insufficient data were available to permit the reporting of statistical distributions on the reasons why respondents had trouble with the items. Such data as there are suggest that respondents indicated that the instructions and/or questions were hard to understand, that they lacked sufficient information, or that they had difficulty arriving at an evaluation of an asset.

(4) Applications With A High Probability Of Error

In addition to the simple description of errors described earlier, some efforts were made to develop a method of identifying specific applications with a high probability of error. Although preliminary results are encouraging, because of the preliminary nature of the investigation and the need for additional work to refine the results and correct certain technical deficiencies, the results of that analysis have been relegated to Appendix F.

3. THE SECOND PHASE: INSTITUTIONAL AWARD CALCULATIONS

The second step in determining the BEOG award is for the Financial Aid Officer at the institution where the student has enrolled to calculate the expected disbursement based on the student's EI, cost of education, enrollment status, and other factors which adjust for program length, length of enrollment, and programs spanning two award years. This section analyzes errors made by institutions in determining the expected disbursement. The organization of this section is as follows:

- Overall award error associated with institutional errors
- An analysis of the major types of institutional errors
- Characteristics of institutions with a high potential for error

(1) Overall Award Error Associated With Institutional Errors

Methodology

The institutional error measures described in this section are completely based upon information obtained from the student's SER and from the site review of each case at the institution. (In particular, the error analysis presented is not affected by the level of documentation in the student/parent interviews.) It should be noted that the site reviewer conducted an exit interview at each institution during which each student error was discussed. The FAO was given the opportunity to identify any misinterpretation or miscalculations by the reviewer, and any necessary and warranted corrections were made at that time. Ambiguous situations were referred to the central office and resolved, sometimes drawing upon BSFA for policy guidance.

The institutional error in expected disbursement is the difference between the actual expected disbursement as determined by the institution and the expected disbursement arrived at by the site reviewer, using the same student EI as the institution.[16/] Because the EI is the same in both computations, the only variables which affect the EI are variables controlled by the institution, hence the difference is appropriately attributable to the institution. Unless specifically noted, the individual errors are appropriately weighted to the universe in accordance with the sampling plan.

Distribution of Institutional Errors

Overall, total institutional errors resulted in $169 million in incorrect awards of which $161 million was overawarded and $8 million underawarded (Table 2.18). The average overaward ($663) was much higher than the average underaward ($186) and the percentage of overawards (19.0 percent) was much higher than the percentage of underawards (3.6 percent).

16/ The site reviewer's computations were checked by computer to insure their accuracy.

Table 2.18

INSTITUTIONAL ERRORS IN EXPECTED DISBURSEMENT

	Number of Recipients	Percent of Recipients	ABSOLUTE TOTAL ERRORS				NET ERRORS			OVERAWARDS			UNDERAWARDS		
			Mean	Percent of Population in Error	Total Dollars	Percent of Total Dollars	Mean	Percent of Population in Error	Total Dollars 1/	Mean	Percent of Population in Error	Total Dollars 1/	Mean	Percent of Population in Error	Total Dollars 1/
BEOG Universe Without AEP 2/	1,282,348	100%	$ 55	15.7%	$ 70.4	100%	$ 43	15.7%	$ 55.0	$404	12.1%	$ 62.7	$-166	3.6%	$-7.7
BEOG Universe With AEP	1,282,348	100%	132	22.1	168.8	--	120	22.1	153.5	663	19.0	161.4	-186	3.6	-7.4
Type of Institution 3/															
. 4 year	823,778	64.24	51	15.3	42.3	60	46	15.3	37.5	387	12.5	39.9	-102	2.8	-2.4
. 2 year	371,150	28.94	58	15.9	21.7	31	35	15.9	12.9	412	11.3	17.3	-259	4.6	-4.4
. Other than 4 or 2 year	87,420	6.82	72	18.5	6.3	9	49	18.5	4.3	544	11.2	5.3	-149	7.3	-1.0
Control of Institution 3/															
. Public	904,106	70.50	55	16.8	49.9	71	43	16.8	38.7	374	13.1	44.3	-168	3.7	-5.6
. Private	281,117	21.92	52	10.2	14.7	21	49	10.2	13.7	519	9.7	14.2	-368	0.5	-0.5
. Proprietary	97,125	7.57	59	20.0	5.7	8	30	20.8	2.9	444	10.0	4.3	-130	10.8	-1.4

1/ In millions
2/ Includes cases where verification filing status agrees with SER filing status
3/ Type and control are determined by PIMS classifications (without AEP)

In considering these totals, it should be noted that a single eligibility criteria, the Affidavit of Educational Purpose (AEP), accounted for almost $100 million in overawards. The AEP is a signed and notarized statement by the student that all funds received through any Title IV program (including BEOG) will be used solely for education or educationally related purposes, that the student does not owe a repayment on a student grant and is not in default on a student loan at the school he/she is attending, and that the student is aware that he/she must maintain satisfactory progress to continue eligibility. The site reviews found that 7 percent of the sample did not have a valid AEP on file. A summary of the reasons for AEP errors is given in Table 2.19.

While the absence of a valid AEP is unquestionably an error, it differs from other types of errors in that it can be corrected and the correction will not affect the amount of the expected disbursement. Because of the dominating role of the AEP and the administrative nature of the error, the description of data in this section will present error summaries both including and excluding the AEP.

Thus, excluding the AEP, total institutional errors amounted to $71 million of which $63 million was overawarded and $8 million underawarded, resulting in net overawards of $55 million. The average overaward ($404) was signficantly higher than the average underaward ($166); four out of five errors were overawards.

Institutional Errors by Type and Control

As shown in Exhibit 2-XIII, 16 percent of the BEOG recipients had errors (excluding AEP) in expected disbursement due to the institution's procedures. When divided by type of institution, other-than-four-or-two-year institutions had the highest error rate (19 percent) and four-year institutions the lowest (15 percent). When divided by control of institution, proprietary institutions had the highest error rate (21 percent) and private institutions the lowest (10 percent). (See Appendix G for type and control distributions.)

Table 2.19

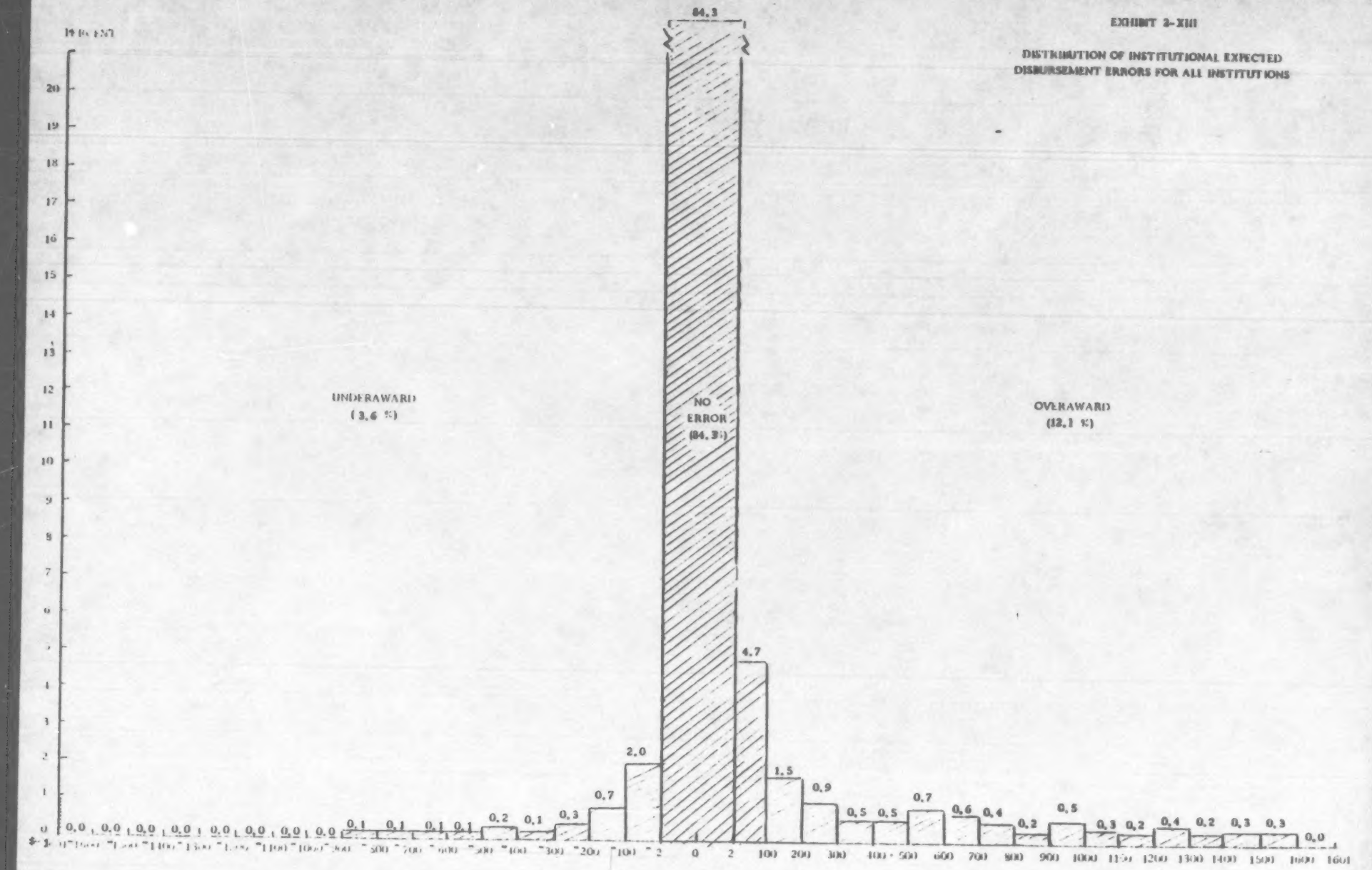
REASONS WHY THE AFFIDAVIT OF EDUCATIONAL PURPOSE WAS NOT VALID

Not notarized	22.3%
Unsigned	1.6
Not present	63.3
Other*	12.8
Total	100%

* For example, "in another file, we can't give it to you," "it's supposed to be here," and other reasons offered by FAOs to explain absence of AEP.

EXHIBIT 2-XIII

DISTRIBUTION OF INSTITUTIONAL EXPECTED DISBURSEMENT ERRORS FOR ALL INSTITUTIONS



MEAN ERROR = $43

As shown in Table 2.20, 77 percent of all institutional award errors were overawards. The percentage of overaward errors to all errors varied only slightly by type of institution (four-year--82 percent, two-year--71 percent, other--61 percent). When viewed by control of institution, however, the percentage of overaward errors to all errors varied considerably (public--78 percent, private--95 percent, proprietary--48 percent). In all cases, the mean overaward was considerably larger than the mean underaward (from one and one-half to three and one-half times as large). In terms of total dollars awarded in error, the distributions by type and control of school were in proportion to the numbers of students attending the various types of schools.

(2) Major Types Of Institutional Errors

Methodology

In this section, the major types of institutional errors involved in determining a student's expected disbursement are examined.[17/] There are two basic categories in this analysis, namely, eligibility determination errors and computational/procedural errors. In the former category are errors assocated with factors such as possession of a bachelor's degree, unsatisfactory progress, no valid Affidavit of Educational Purpose, receipt of Basic Grants for more than fours years, etc. They share the characteristic that if they apply to the student then the expected disbursement should be zero. Computational/procedural errors include incorrect use of the Payment Schedule, use of the wrong cost of education or enrollment status, and errors in prorating an award when the student was in a program longer than twelve months, or in a program which overlapped award periods, or in other situations. Any error not associated with a particular eligibility criterion is considered a computational/procedural error.

17/ This analysis is based on student record abstracts for the full student sample.

TABLE 2.20: DECOMPOSITION OF INSTITUTIONAL ERRORS BY TYPE OF ERROR

	Absolute Errors			Net Errors			Overawards			Underawards		
	Mean[1]	Percent in Error	Dollars[2]	Mean[1]	Percent in Error	Dollars[2]	Mean[3]	Percent in Error	Dollars[2]	Mean[3]	Percent in Error	Dollars[2]
Calculation/Process	$ 36	14.4%	$ 46.7	$ 24	14.2%	$ 31.0	$ 287	10.6%	$ 39.0	$166	3.6%	-$7.7
Eligibility, Except AEP[4]	18	1.5	23.7	19	1.5	23.7	1,232	1.5	23.7	0	0	0
All Errors Except AEP	55	15.7	70.4	43	15.7	55.0	404	12.1	62.7	- 166	3.6	- 7.7
AEP	78	7.0	98.4	78	7.0	98.5	1,111	7.0	98.7	-	.5	+ 0.3[5]
All Errors	132	22.1	168.8	120	22.1	153.5	663	19.0	161.4	- 186	3.1	- 7.4

1/ Over entire population
2/ In millions
3/ Over those in error
4/ Affidavit of Educational Purpose
5/ This represents underawards which became overawards after AEP criterion was applied.

The division of errors between computational/procedural and eligibility was generally simple because the occurrence of eligibility errors was so infrequent in the sample that only a very small number of cases had both types of error or more than one eligibility error. In cases with both types of errors, the computational/procedural error was determined first, without consideration of the effects of eligibility errors.[18/] Then, the total error was computed, considering all sources of error. Finally, the difference between the total error and the computational/procedural error was attributed to eligibility criteria error.

Type of Errors

Two-thirds of incorrect institutional award dollars (excluding AEP) were attributable to computational/procedural errors (Table 2.20), amounting to $47 million in total dollar error. Computational/procedural errors resulted in overawards three times as often as underawards and the average overaward was larger than the average underaward.

Eligibility errors other than AEP are estimated to occur infrequently, in only about 1.5 percent of the population. Nonetheless, because they have the effect of making the entire expected disbursement erroneous, the average overaward associated with eligibility errors was quite large--over $1,000. In terms of total dollar errors, this relatively small group of students was assocated with 34 percent ($23.7 million of $70.4 million) of the errors, or $24 million.[19/] When AEP errors were included, about 8 percent of the students accounted for 73 percent of the total dollar error or about $122 million ($23.7 million calculation plus $98.4 million AEP).

18/ Computational/procedural error is computed using the same basic procedure for total institutional error, except that the effects of eligibility errors are ignored, i.e., the true expected disbursement was not set to zero when an eligibility error was present.

19/ Note that for eligibility errors, total overawards are equal to net overawards and to total dollar errors.

Because the proportion of students with eligibility errors other than AEP was so small, it was not possible to determine the relative importance or impact of various types of eligibility errors. Nonetheless, it was possible to identify the most frequently occurring errors, as displayed in Table 2.21. Eligibility errors because a student was not making satisfactory progress[20/] were most common, followed by situations where a student dropped below half-time status (including dropping out entirely), along with a number of situations which were detected very infrequently.

As mentioned, computational/procedural errors account for a significant proportion of institutional award errors. It is difficult to subdivide this error because the FAO's computational process is something of a "black box," i.e., the detailed steps of the award computation are often not recorded and were definitely not recorded on a systematic and comprehensive basis for the sample of students in the study. Because of this lack of information it generally was not possible to divide the computational/procedural error estimate: the exception to this rule was that an analysis of the impact of errors in determining the cost of education could be conducted, because the value used by the FAO was recorded on the SER.

Table 2.22 displays the discrepancies between the verification cost of education and the institution's cost of education as determined by the FAO. Over 42 percent of cost-of-education determinations are estimated to be erroneous; 25 percent of the determinations are overestimates and 18 percent underestimates. The average error was a $33 overestimate.

Nonetheless, the effect of cost-of-education errors was found to be negligible, accounting in the aggregate for less than 1 percent of net

---

20/ This determination was based upon student's grade point average and published school policy. Unwritten policies which permitted students on probation to receive aid were not considered.

TABLE 2.21

PERCENT OF STUDENTS RECEIVING AN AWARD DETERMINED TO BE INELIGIBLE OR NOT FILING AN AFFIDAVIT OF EDUCATIONAL PURPOSE

Type of Error	Percent of Population
Student is not seeking degree, or not training for recognized skilled profession	0.3%
Student is in a special, nondegree status	0.3
Student attending the school as part of consortium, but this is not the parent institution and the student received a BEOG award from the school	0.0
Student possesses a bachelor's or advanced degree	0.3
Student was not making satisfactory academic progress at the time of award	0.9
Institution on clock-hour system and number of clock-hours required is less than 12 per week	0.1
Student was enrolled for less than 6 credits at the time of award	0.8
Default on previous Federal loan, or grant monies owed	0.0
No affidavit of educational purpose	7.0
Summary*	
Any eligibility error except AEP	1.5
Any eligibility error	8.4

* Note that the occurrence of any eligibility error (except AEP) at 1.5 percent is significantly smaller than the simple sum of individual eligibility errors, which is 2.7 percent. This was caused by dependence among the eligibility criteria. For example, a student who was not enrolled at the time of award was also not making satisfactory progress.

TABLE 2.22
DISTRIBUTION OF DISCREPANCIES BETWEEN
THE VERIFICATION COST OF EDUCATION AND
THE INSTITUTION'S COST OF EDUCATION

DISCREPANCY = INSTITUTION'S VALUE - VERIFICATION VALUE

	Discrepancy	Percent
Potential Underpayment	Less than -$1001	0.7
	-$751 to -$1000	0.3
	-$501 to -$ 750	0.2
	-$301 to -$ 500	1.2
	-$201 to -$ 300	0.9
	-$101 to -$ 200	1.5
	-$ 76 to -$ 100	0.7
	-$ 51 to -$ 75	2.5
	-$ 26 to -$ 50	1.6
	-$ 11 to -$ 25	2.4
	-$ 1 to -$ 10	5.4
	$ 0	57.5
Potential Overpayment	$ 1 to $ 10	3.7
	$ 11 to $ 25	2.2
	$ 26 to $ 50	3.2
	$ 51 to $ 75	1.4
	$ 76 to $ 100	1.3
	$101 to $ 200	3.6
	$201 to $ 300	1.2
	$301 to $ 500	3.4
	$501 to $ 750	2.7
	$751 to $1000	1.1
	$1001 or More	1.2
		100.0

Mean = $33.31

overaward dollars associated with computational/procedural errors.[21] Since many institutions have costs of education which far exceeded $3,200 per year (the maximum line when entering the payment schedule), FAO apparently did not bother with the detailed cost estimate since it did not affect the award. Thus, computational/procedural errors are almost entirely associated with other aspects of the institutional award computation.[22]

(3) Error-prone Institutional Attributes

Attempts were made to develop models which would identify institutions with a high probability of making institutional errors. They have not been included in this report as preliminary results were ambiguous. Further analysis appeared unwarranted because of technical limitations associated with the relatively small sample of schools (210) and the limited value of the descriptive variable set.[23]

4. THE THIRD PHASE: INSTITUTIONAL MONITORING AND PAYMENTS

The error analysis presented in the previous two sections was essentially a projection of the total amount of error that would be sustained by the BEOG program if the institution or the student took no corrective actions, if the student did not change his educational plans, and if disbursements were made as

---

[21] Total institutional error is arrived at by holding the student characteristic constant (the EI) and examining the impact of differences between site review determinations and the institution's original determinations. For the cost-of-education impact analysis, the student EI was again held constant, but this time only site review determinations were used, except for the cost of education.

[22] E.g., using the correct enrollment status, using the Payment Schedule correctly, prorating the award if the program was less than eight months, if it spanned award years, if it was longer than twelve months, or if it was less than a full academic year.

[23] It was primarily attitudinal data which would not be available to BSFA on a universe basis and so could not provide the basis for a strategy to select error-prone schools.

scheduled. This is, of course, not a realistic assumption because students frequently change their academic plans and the institutions have ample opportunity to correct any initial errors. Nonetheless, because of the timing of field data collection, such a comprehensive approach was not possible and only a limited amount of information is available concerning postaward activity.[24/]

After the FAO calculates the expected disbursement for an eligible BEOG recipient, a payment is made at some later time determined by the institution. There are two disbursement systems through which a student can be paid a Basic Grant award: the Regular Disbursement System (RDS) and the Alternate Disbursement System (ADS). Since the majority of students are paid their Basic Grant awards directly by the schools which participate in the RDS, the discussion in this section will focus on RDS procedures (less than 3 percent of our sample were from ADS schools). RDS schools are free to use their own methods for making student assistance payments within the guidelines established in the Student Financial Aid 1978-79 Handbook.

The data summarized in this section deal with the relation of the first actual payment to the expected disbursement and the expected disbursement error. Although information was collected on refund and repayment policies, too small a proportion of the sample had refunds or repayments at the time of the site review to permit reporting. Other data on this subject are reported in Chapter 4.

(1) Payments to Ineligible Students

As reported in Table 2.21, about 8 percent of the BEOG universe is estimated to be ineligible for a Basic Grant, although most of this group (80 percent) is ineligible because they lack a valid Affidavit of Educational Purpose (AEP). Review of business office records at the institutions

---

24/ A follow-up of institutions by BSFA is being conducted to investigate the final disposition of the grants.

revealed that the first scheduled payment was actually made to 80 percent of the ineligible students.

(2) Disbursal Rate

No more than one-half of the Basic Grant expected disbursement should be paid in the first payment period, except that amounts may be rounded to avoid disbursing fractions of dollars. For instance, a student whose expected disbursements is $485 may receive payments of $243 and $242.

If institutions were correctly following BEOG policy, then the amount of the first payment should never be more than one-half of the expected disbursement (±$1). By comparing these institutions' expected disbursement from the SER and the amount of the first payment from the business office records, it is estimated that approximately 4.6 percent of Basic Grant students received more than half of their expected disbursement in the first payment.

(3) Awards Not Paid

It was found that for 4.3 percent of all the students the institutions did not make payments, although nonzero Basic Grant had been computed.

5. SUMMARY OF AWARD DISCREPANCIES

This chapter presented analyses of discrepancies in expected disbursement associated with student errors in the application process and institutional errors in computing the expected disbursement. The first part of this section presents a brief summary of overall award errors and the relative contributions of student and institutional errors.

As pointed out earlier, the expected disbursement computed by the FAO is not equivalent to the actual payments made in cash to the student or credited

to the student's account. Thus, errors in expected disbursement are not verified payment errors, because it is possible that errors in expected disbursement could have been detected at a later poirt in the award period and corrected. Although complete payment histories are not available, there is some indication that FAO's have corrected errors at a later date. In the second part of this section, the effect on error rates of excluding persons with no payment recorded is examined.

(1) Overall Errors In Expected Disbursement

A summary of estimated expected disbursement is presented in Table 2.23.[25/] Overall, nearly 60 percent of BEOG awards were in error; 41 percent of the awards were too high, and 18 percent of the awards were too low. (See Exhibit 2-XIV.)

The average overaward was $519 and the average underaward was $255. In total there were approximately $274 million in overawards and $59 million in underawards, resulting in a net overaward of approximately $215 million. Total dollar errors (both positive and negative) were $334 million.

Because the study universe of students was estimated to have aggregate expected disbursements of approximately $1.1 billion for the 1978-79 award period, the dollar overaward rate is estimated to be approximately 19.5 percent and the ratio of total dollar errors to total expenditures to be approximately 30 percent. Thus, about one dollar of every five spent on the program was used to fund overawards. Further, for every $10 dollars spent on the program an additional dollar should have been spent, but was not.

25/ This analysis deletes from the original study universe an estimates 70,800 recipients (who received approximately $74 million) whose errors could not be estimated because their independent/dependent filing status was not corroborated in the verification interview.

Table 2.23

TOTAL EXPECTED DISBURSEMENT ERRORS

BEST COPY AVAILABLE

	Total Absolute Errors			Net Overawards			Overawards			Underawards		
	Mean[1]	Percent in Error	Dollars[2]	Mean[1]	Percent in Error	Dollars[2]	Mean[3]	Percent in Error	Dollars[2]	Mean[3]	Percent in Error	Dollars[3]
Total Error												
. Absolute Student-Institution Error[4]												
- With AEP[5]	$270	59.3%	$345.9	$168	59.3%	$215.1	$531	41.2%	$280.6	-$281	18.1%	$65.3
- Without AEP	219	55.2	247.5	93	55.2	116.3	397	35.9	181.9	- 263	19.4	65.6
. Net Student-Institution Error[4]												
- With AEP	260	59.3	333.5	168	59.3	215.1	519	41.2	274.3	- 255	18.1	- 59.2
- Without AEP	191	55.2	245.3	93	55.2	116.3	397	35.9	181.9	- 255	19.4	- 63.4
Institutional Error												
. With AEP	132	22.1	168.8	120	22.1	153.5	663	19.0	161.4	- 186	3.1	- 7.4
. Without AEP	55	15.7	70.4	43	15.7	55.0	404	12.1	62.7	- 166	3.6	- 7.7
Student Error	138	42.8	177.1	48	42.8	61.3	359	25.9	119.2	- 267	16.9	- 57.9

1/ Over entire population
2/ In millions
3/ Over those in error
4/ "Absolute student-institution" error computes each student's error by adding the absolute value of student error to the absolute value of institutional error for that student, while net student-institution error adds the two quantities taking signs into account.
5/ Affidavit of Educational Purpose

EXHIBIT 2-XIV

DISTRIBUTION OF
AWARD ERRORS

PERCENT OF BEOG AWARDS IN ERROR

Students and parents are estimated to be responsible for 53 percent of total dollar errors. Student and parent errors in reporting adjusted gross income, nontaxable income, home value, number in postsecondary education, household size and taxes paid accounted for most of the student error.

Institutional errors (47 percent of total dollar errors) were dominated by the impact of invalid Affidavits of Educational Purpose (42 percent of institutional errors). Other errors in making awards to ineligible students accounted for about 14 percent of institutional error; the remaining portion was attributable to computational/procedural errors. Most frequently, awards to ineligible students were to students not making satisfactory progress. It was found that while cost-of-education errors occured frequently, they had little effect on awards.

(2) Overall Errors In Expected Disbursement For Those Students Who Had Received A Payment At The Time Of Data Collection

Table 2.24 displays the overall errors in expected disbursement along with the student and institutional errors for those students who had received at least one payment at the time of data collection (94 percent of the cases investigated). For these cases, the mean overaward due to both student and institutional errors was $15 less than for all cases; and the mean overaward due to institutional error $35 less. The percentage of overawards due to institutional errors was also 1 percent less. A slight decrease (of $5) in the mean overaward due to student errors was also observed. Overall, the total overaward was $18 million less for those cases receiving a payment than for all cases irrespective of payments. The total amount of underawards was approximately $1 million less. Most of the observed decreases in overawards were in those due to institutional errors (decrease of approximately $12.7 million).

The data suggest that the institutions have detected a small proportion of the errors made in computing expected disbursements prior to making any payments. And, it is also possible that additional award errors may

TABLE 2.24

OVERALL ERRORS IN EXPECTED DISBURSEMENT
INCLUDING ONLY THOSE STUDENTS WHO HAD RECEIVED
THEIR FIRST PAYMENT AT THE TIME OF DATA COLLECTION
N = 1,210,504

	Net Overawards			Overawards			Underawards		
	Net Mean[1/]	Percent In Error	Dollars[2/]	Mean[3/]	Percent	Dollars[2/]	Mean[3/]	Percent	Dollars[2/]
Overall Errors W/O AEP	$84	55.0%	$99.2	$382	35.2%	$163.6	$-257	19.8%	$-64.4
Student Errors	47	43.9	56.3	354	26.5	113.6	-272	17.4	-57.3
Institutional Errors W/O AEP	35	14.9	42.9	369	11.2	50.0	-159	3.7	-7.1

1/ Over entire population

2/ In millions

3/ Over those in error

have been detected by the institutions during the interval between data collection and the end of the award period. A follow-up study is planned by OE to investigate this issue.

CHAPTER 3. INSTITUTIONAL FEEDBACK ON BSFA ACTIVITIES

CHAPTER 3. INSTITUTIONAL FEEDBACK ON BSFA ACTIVITIES

1. OVERVIEW, SOURCE OF DATA

(1) Overview

This chapter presents information on BSFA activities from the institutions included in the survey. The chapter is organized into five principal sections: OE validation, communications, materials and publications, training, and fiscal operations; a final section covers general suggestions by the institutions and other topics.

(2) Description And Source Of Data

The data used in this chapter are derived primarily from personal interviews with 210 Financial Aid Officers which were conducted by Macro's professional staff members during late 1978 and early 1979. It must be emphasized that these data are entirely opinions of FAO's and not based upon records or other independent analysis. The 210 respondents represent a 100 percent response from all sampled schools with BEOG recipients in the 1978-79 award period (15 schools were deleted from the original sample because they had no current recipients). The information from the respondents has been weighted to produce valid estimates of the characteristics of the universe of all schools with BEOG recipients in the 1978-79 award year. Although the estimates are believed to be accurate, the potential for error is present because of the relatively small sample size. It is recommended that the numbers presented herein be interpreted as suggestive of potential problems and indicative of trends and attitudes, but not used as final, definitive point estimates.

More information on the institutional data collection procedures can be found in Volume II of this report.

2. OE VALIDATION

In 1978-79, the Office of Education required certain students to provide documentation substantiating data reported on their Basic Grant applications. This OE requirement is referred to as "OE validation" in this report, as opposed to the term "institutional validation," which we reserve for validation activities conducted by institutions according to their own standards and policies. Information collected from FAO's on OE validation is presented in the next section, while information on institutional validation is contained in Chapter 4.

(1) Extent And Impact

At the time of data collection, Table 3.1 shows that most of the institutions (86 percent) had had at least one student selected for validation by OE. Overall, 7 percent of all BEOG recipients (approximately 128,500 students, representing about 26 per school) were selected. The distribution of total students selected was uniform by type of control with about 7 percent of the recipients being selected from each group. The proportion of schools with at least one selected student varied substantially by control, however, with 100 percent of the public institutions and 97 percent of the private institutions reporting that someone had been selected, but only 65 percent of the proprietary institutions reporting the same. The disparity reflects the larger numbers of recipients in most public and private institutions than are found in most proprietary schools.

The institutions were also asked whether they had initiated validation activities prior to the finalization of OE requirements. Of those responding, 60 percent of all schools indicated that they had initiated the validation of OE-selected students prior to the publication of the final BEOG regulations. This figure varied considerably by control of school, with public institutions most frequently beginning earlier (74 percent) and proprietary institutions least frequently doing so (43 percent).

Table 3.1

Extent And Impact Of OE Validation

	Public Institutions	Private Institutions	Proprietary Institutions	All Institutions
EXTENT				
Total Number Of Students Selected[1]	97,500	20,500	10,500	128,500 (24,200)[3]
Total As Percentage of Total BEOG Recipients[2]	6%	7%	6%	7%
Mean Number Selected Per Institution	66	12	6	26
Percentage of Institutions With At Least 1 Selected	100%	97%	65%	86%
IMPACT				
Students For Whom Corrections Were Made:				
- Total	43,000	9,000	2,500	55,000 (11,000)
- As Percentage Of Total Number of Students Selected	45%	43%	23%	43%
Students For Whom Awards Were Changed:				
- Total	20,500	4,000	1,000	25,000 (7,600)
- As Percentage of Total Number of Students Selected	21%	20%	10%	20%
Students Not Responding To Request:				
- Total	27,000	3,000	500	30,500 (12,400)
- As Percentage of Total Number of Students Selected	28%	14%	3%	24%

[1] Totals shown are rounded to nearest 500

[2] Percentages are based on estimated numbers of students validated

[3] Standard errors are in parentheses

OE validation has had a significant impact[1/] in both absolute and relative terms: corrections were necessary for 43 percent of those selected, and awards had to be changed for 20 percent of those selected. A substantial proportion (24 percent) of those selected, however, did not respond to the request for documentation.

(2) Institutional Problems And Suggestions

The institutions were asked to make recommendations regarding OE's validation policy and over half did (51 percent). The most frequent recommendations are displayed in Exhibit 3-I. Public institutions made the most recommendations, while proprietary institutions made the fewest.

The most commonly cited suggestion was for OE or ACT, rather than the institutions (FAOs), to conduct the validation activities. This was consistent with the recommendation of many schools that the institutions be given some sort of aid, allowance, and/or assistance if they are to continue to perform the validation activities themselves.

The other major recommendation was to improve procedures for defining, measuring, and documenting income (especially, but not exclusively, nontaxable income), as many institutions reported problems in this area. Schools also recommended that problems associated with timing be resolved, and that the tolerances used in OE validation be increased. A few schools made a point of commending the program, and other schools made recommendations aimed at general improvements in procedures and forms.

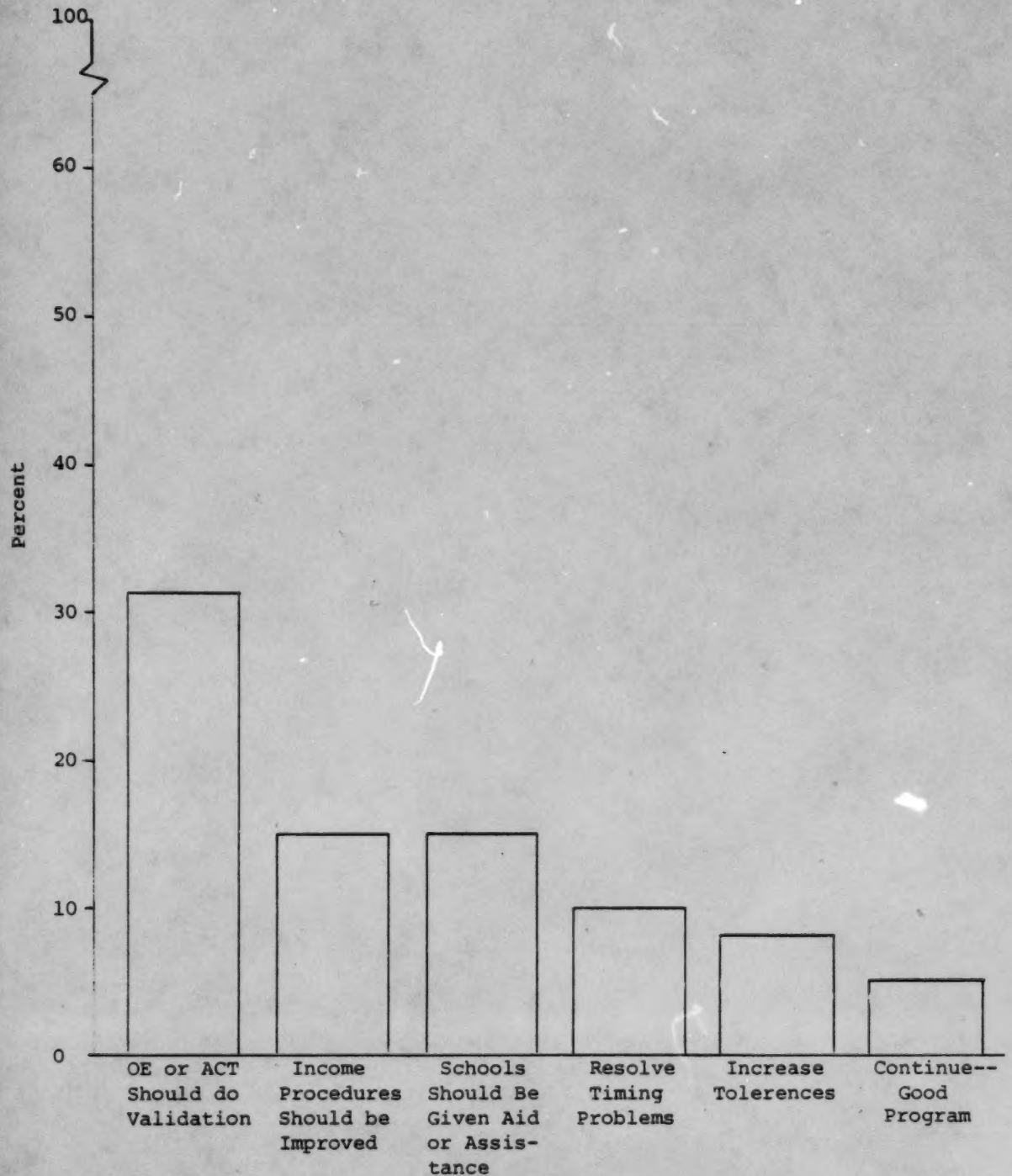
A large number of other, essentially unique, responses were received. Ideas offered included: that validation be done by mail correspondence with the student; that the application be notarized; that OE rely upon better edits; that all 18-21 year old independent students be validated; and that FAOs be paid for validation activities.

1/ Impacts are stated in terms of corrections arising because of the validation process. The impact of this process in terms of the change in EI level and payment amount could not be estimated from the data.

EXHIBIT 3-I

PRIMARY INSTITUTIONAL RECOMMENDATIONS
ON OE VALIDATION

Key: —— = Percentage citing among institutions making recommendations



(3) Discussion And Summary

It is clear that OE validation has had a significant impact on the BEOG program, producing both positive and negative results. Over 86 percent of the institutions had students selected for validation, representing a total of almost 7 percent of all BEOG recipients. Of the students selected, 43 percent were required to make corrections. As a result of validation, one in five students selected has had his or her award changed. In addition, one in four students did not respond (and presumably did not receive an award).

Nevertheless, OE validation has generated several problems as well. Many institutions felt that OE validation imposed an undue burden on them, and that OE should either assume the responsibility for validation activities itself or provide the institutions involved with some sort of assistance or allowance. In addition, the institutions recommended that income procedures be improved, that timing problems be resolved, and that tolerances be increased.

3. COMMUNICATIONS

(1) Telephone

Data were collected on the telephone communications experience of the institutions with a variety of information sources. Table 3.2 summarizes these data showing frequency of calling, difficulty in contacting, and helpfulness for each of the following five sources: OE National, OE Regional, Application Processor (American College Testing Program, ACT), Public Information Service (Student Information Center, Biospherics, Inc.), and other FAOs and institutions.

Regional OE offices were the most frequently called source (with 17 percent frequently calling and 80 percent ever calling), while other FAOs and institutions were the least frequently called source (with 9 percent

Table 3.2

Telephone Communications Experience

	OE National[1/]		OE Regional		Application Processor		Public Information Service		Other FAOs	
	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
Frequency Called										
Frequently	13	4	17	4	14	3	8	3	9	-
Occasionally	25	5	44	7	24	5	12	3	9	-
Rarely	35	5	19	4	20	5	10	3	2	-
Never	28	6	20	5	42	6	71	9	80	-
	100		100		100		100		100	
Difficulty Contacting										
None	53	8	73	10	65	10	70	15	99	-
A Little	18	4	10	3	14	4	10	7	1	-
Some	10	3	7	2	12	3	10	5	-	-
A Great Deal	13	4	8	3	8	5	6	3	-	-
Impossible	6	4	2	2	1	1	4	3	-	-
	100		100		100		100		100	
Helpfulness										
Very Helpful	55	-	67	-	60	-	60	-	89	-
Somewhat Helpful	34	-	25	-	22	-	37	-	11	-
Not Helpful	11	-	8	-	18	-	3	-	-	-
	100		100		100		100		100	

Standard error of estimate

calling frequently and only 20 percent ever calling). Other FAOs and institutions were by far the easiest source to contact, however (only 1 percent reported any difficulty), while OE National was the most difficult to contact (47 percent reported some difficulty in contacting, and 6 percent reported that OE National was "impossible" to contact). Finally, other FAOs and institutions were the most helpful source once contacted (89 percent cited "very helpful"), while the Application Processor was the least helpful (18 percent cited "not helpful"). The telephone communications experience with these sources appeared to vary considerably by control of institution, although no clear patterns emerge from the data.

(2) Written

Similar data were collected on the written communications experience of the institutions during the preceding six months. Table 3.3 displays the proportion of schools writing, the average number of times written, the average response time, an evaluation of response quality by the schools, and the proportion of schools reporting no response. The data are reported for three sources: OE National, OE Regional, and the Application Processor (no other sources were written frequently enough to permit meaningful analysis).

The statistics show significant variations by source and by type of control. Overall, OE National was written most often by the schools, and it was the quickest to respond (along with ACT), but it had the poorest quality rating and the highest incidence of nonresponse. On the other hand, OE Regional was written the fewest number of times per school and was the slowest to respond, but it had the lowest incidence of nonresponse. Finally, the Application Processor was written by the fewest schools, had the quickest response time (along with OE National), and had the highest quality of response. Among the three control types, public institutions tended to write the most, while private institutions tended to give the highest quality ratings despite also reporting the highest incidence of nonresponse.

Table 3.3

Written Communications Experience

OE National	All Institutions
Percentage of Schools Writing	13%
Average # Times Written*	2.6
Average Response Time (Weeks)	2.6
Percentage Reporting No Response	29%
Response Quality:	
Excellent	25%
Good	29
Fair	13
Poor	33
OE Regional	
Percentage Of Schools Writing	8%
Average # Times Written	1.7
Average Response Time	2.9
Percentage Reporting No Response	5%
Response Quality:	
Excellent	21%
Good	67
Fair	12
Poor	-
Application Processor	
Percentage Of Schools Writing	5%
Average # Times Written	4.3
Average Response Time	2.6
Percentage Reporting No Response	16%
Response Quality:	
Excellent	24%
Good	67
Fair	9
Poor	-

* In last 6 months, for schools writing at least once

(3) Institutional Comments

Unstructured comments concerning communications with OE were also solicited, and 55 percent of the institutions took advantage of this opportunity. Table 3.4 reveals that 25 percent of the institutions responding felt that the quality of OE communications could be improved (by such methods as putting more responses in writing; making the responses clearer, more specific, and more consistent; and/or improving the quality of the OE staff providing these responses); 17 percent felt that access to OE could be improved (primarily by adding telephone lines and/or staff); 10 percent felt that the responses could be faster; 19 percent expressed satisfaction with OE communications; and 35 percent of the institutions made a variety of other comments (percentages add to over 100 due to multiple responses), including: emphasizing regional office communications over national office communications; using NASFAA to interpret regulations; allowing FAO's access to student data; expanding and improving OE staff; etc.

The number and nature of comments received varied considerably by type of control. Public institutions most frequently had comments (63 percent), followed in order by private (56 percent) and proprietary (48 percent) institutions; this is consistent with the previously reported finding that public institutions tended to communicate more frequently with OE than did the other two control types. There were significant variations within the response categories as well: proprietary institutions most frequently cited the need for improved quality, improved access, and faster response, and had the fewest favorable comments; private institutions had the most "other" comments; and public institutions had the greatest proportion of favorable comments.

(4) Summary

In summary, the telephone and written communications data indicate that BEOG institutions, and in particular public institutions, consult a variety of sources for help, but primarily the OE National and Regional

Table 3.4

Open-Ended Comments On OE Communications

	Public Institutions	Private Institutions	Proprietary Institutions	All Institutions
Percentage Citing:[1/]				
Improve Quality	23%	12%	41%	25%
Communications Are Good	32	18	7	19
Improve Access	6	17	28	17
Faster Response	7	11	13	10
Other Comments	32	47	24	35

1/ Percentages may add to over 100 percent due to multiple responses

offices. Too frequently, BEOG institutions indicate, their communications are not answered, answered too slowly, or answered inadequately. In both written and oral (telephone) communications, OE Regional was felt to be more helpful then OE National, while less frequently contacted sources such as the Application Processor (ACT), Public Information Service, and other FAOs and institutions were perceived positively.

4. MATERIALS, PUBLICATIONS

(1) Availability Of Significant BSFA And Related Publications

Six different BEOG-related materials and publications were available to over 90 percent of the institutions, and two additional publications were available to approximately 40 percent of the institutions. Table 3.5 summarizes the data obtained on these eight primary materials and publications. (A breakout by control type is not provided due to lack of variation by type of control in these statistics.) As noted above, over 90 percent of the institutions reported that the 1978-79 Payment Schedule, the 1977-78 Student Financial Aid Handbook, the Validation Handbook, the Federal Register regulations, the 1977-78 BEOG Handbook, and the BSFA News were all available, while almost 45 percent said that the 1978-79 Student Financial Aid Handbook was available (this percentage has undoubtedly risen since the time of the interviews) and almost 40 percent reported that the Q and A Newsletter was available.

(2) Quality Of Significant BSFA And Related Publications

Table 3.5 also shows the quality ratings given each of these materials. The 1978-79 Payment Schedule was clearly felt to be the most useful publication available, followed by the Student Financial Aid Handbooks for 1977-78 and 1978-79 and the Validation Handbook. The two least useful publications, on the other hand, were the Federal Register regulations and the Q and A Newsletter, but none of the eight materials were rated as "not useful" by more then 10 percent of the institutions.

Table 3.5

Availability And Quality Of BEOG Materials

Material	Percentage of Institutions Reporting as Available	Quality Rating[1/]		
		Useful	Somewhat Useful	Not Useful
1978-79 Payment Schedule	99%	95%	4%	1%
1977-78 Student Financial Aid Handbook	99	76	22	2
Validation Handbook	96	81	13	6
Federal Register Regulations	95	59	31	10
1977-78 BEOG Handbook	94	74	20	6
BSFA News	92	62	36	2
1978-79 Student Financial Aid Handbook	45	86	9	4
Q & A Newsletter	39	55	38	7

1/ For those institutions reporting available

Despite this widespread availability and the generally favorable quality ratings, over 40 percent of the institutions experienced some difficulties in acquiring OE materials, as shown in Table 3.6. The most frequently mentioned difficulty was in obtaining various applications and forms; the other major difficulties experienced by the BEOG institutions were in obtaining timely materials and in obtaining various handbooks and regulations. The extent and nature of these difficulties varied by type of control, with proprietary institutions reporting the most difficulties and private institutions reporting the fewest. Proprietary institutions had the greatest difficulty in obtaining applications and forms and the most "other" difficulties, private institutions had the most problems with timeliness, and public institutions reported the greatest difficulty obtaining handbooks and regulations.

Another significant finding regarding OE materials was that almost half (49.6 percent) of the institutions responding reported that they never used the Student Financial Aid Handbook BEOG worksheets for award computations, and an additional sixth (16 percent) reported that they rarely used the work sheets. Among those institutions rarely or never using the BEOG worksheets, most (59 percent) gave as a reason that the computation was routine; other reasons given included using their own worksheets (10 percent), not knowing about the BEOG worksheets (7 percent), not needing to use them (5 percent), timeliness (2 percent), other reasons (8 percent), or a combination of the computation being routine and another of the aforementioned reasons (9 percent). Finally, although we did not specifically ask about NASFAA[2/] materials, 5 percent of the institutions reported that NASFAA materials were available and useful.

(3) Institutional Comments

Open-ended comments were also solicited on the subject of OE materials, and 58 percent of the institutions responded; this information is presented in Table 3.7. The majority (55 percent) of those responding

---

2/ National Association of Student Financial Aid Administrators

Table 3.6

Difficulties In Obtaining BEOG Materials

Difficulty	Public Institutions	Private Institutions	Proprietary Institutions	All Institutions
Percentage Citing Any Difficulties	37%	34%	53%	42%
Percentage Citing Difficulties With:*				
- Timeliness	13%	18%	13%	15%
- Applications and Forms	6	12	23	14
- Handbooks and Regulations	13	5	5	7
- Other	13	<1	32	16

* Percentages citing specific difficulties sum to greater than percentage citing any difficulties due to multiple responses

Table 3.7

Open-Ended Comments On BEOG Materials[1/]

Comment	Public Institutions	Private Institutions	Proprietary Institutions	All Institutions
Percentage Citing:[2/]				
Improve Quality	44%	42%	73%	55%
Improve Timing	35	38	23	31
Index or Catalog	14	13	-	9
Materials are Good	13	19	1	11
Other	16	5	13	11

1/ Based on 58 percent of institutions who responded.

2/ Percentages may add to over 100 percent due to multiple responses

cited the need for improved quality (primarily in terms of clarity, conciseness, and consistency); 31 percent cited the need for improved timing (both of the materials themselves and of their delivery); 9 percent suggested that the various materials and publications be indexed and/or catalogued; 11 percent commented that the materials were good; and 11 percent made other comments (percentages add to over 100 due to multiple responses).

A greater proportion of public institutions (68 percent) made comments than did proprietary (57 percent) or private (50 percent) institutions, and the nature of these comments varied by control group as well. Proprietary schools most frequently cited the need for improved quality and had the lowest proportion commenting that OE materials were good; private institutions had the greatest proportion citing the need for improved timing and commenting that OE materials were good; and public institutions had the greatest proportion suggesting that the materials be indexed/catalogued and making other comments.

In summary, most OE materials were available and at least somewhat useful to the institutions. This was particularly true of the Payment Schedule and the Student Financial Aid Handbooks; NASFAA materials, although available to only a small minority of institutions, were also very useful. Nevertheless, certain materials (particularly the Federal Register regulations and the Q and A Newsletter) appeared to be of limited value, the BEOG worksheets were frequently not used; and a significant number of institutions (particularly proprietary schools) reported other problems associated with the timeliness, quality, and/or availability of selected materials and publications.

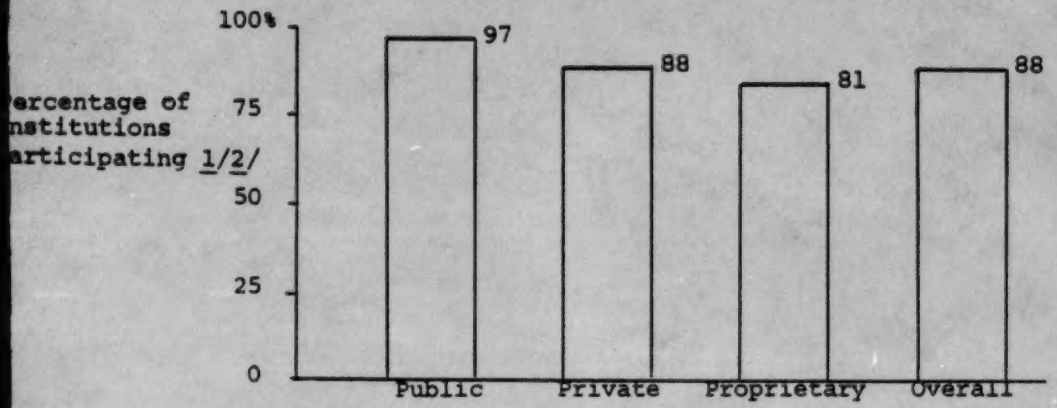
5. TRAINING

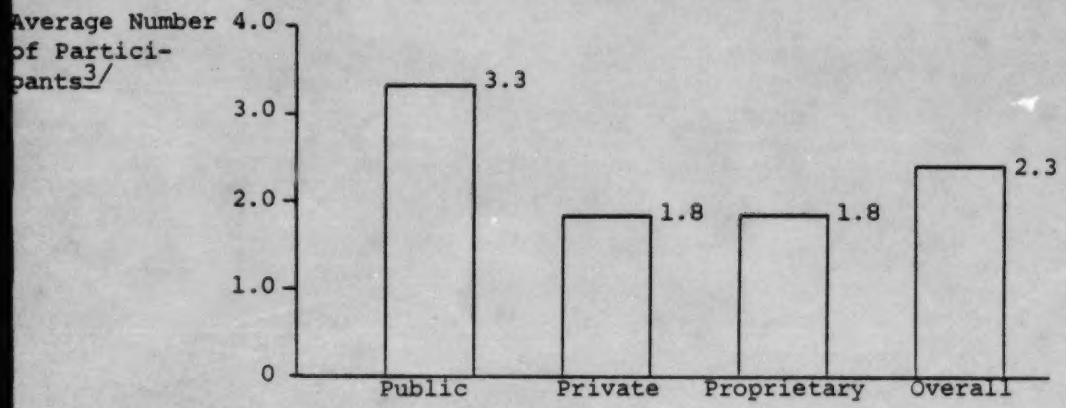
(1) Extent Of Participation By Institutions In OE Training

Institutional participation in OE-sponsored off-site BEOG training was generally quite high. As Exhibit 3-II shows, 88 percent of the institutions had sent at least one representative to this training within the previous

EXHIBIT 3-II

INSTITUTIONAL PARTICIPATION IN
OE-SPONSORED TRAINING





1/ Percentage of institutions with at least one participant in previous calendar year.

2/ The Division of Training and Dissemination estimates only 67.8 percent of institutions participated in training exercises in 1978.

3/ Average number of participants in previous calendar year for institutions participating in training.

year, with an average of over two individuals being sent by participating schools (representing roughly half of the average financial aid staff). Public schools were clearly the most active in this training, while proprietary institutions were the least active.

(2) Evaluation Of OE-Sponsored Training By Institutions

Table 3.8 displays information on the institutions' evaluation of the quality, strong points, and weak points of BEOG training. Overall, 76 percent of the institutions rated the training programs as "good" or "excellent," with only 6 percent giving them a "useless" rating. The most frequently cited strong point was the training staff, and the most frequently cited weak point was content (particularly in terms of relevance to different types of schools and to different skill levels among the attending FAOs).

There were significant variations among the control types in their evaluation of BEOG training. Public institutions were clearly the most favorable in their assessment, with the best quality ratings, the fewest "useless" responses, and the fewest institutions not citing any strong points. Proprietary schools, on the other hand, were the least favorable, with the worst quality ratings, the most "useless" ratings, the most institutions not citing any strong points, and the fewest institutions not citing any weak points.

These differences by type of institutional control extended to specific strengths and weaknesses as well. On the strengths side, private institutions were the most likely to cite the trainers and the exercises and the least likely to cite the materials and other strengths (many of which consisted of non-specific praise); proprietary institutions, on the other hand, were the most likely to cite the materials and other strengths and the least likely to cite the trainers and the exercises. On the weaknesses side, public institutions were the most likely to cite the materials and other weaknesses (such as the timing, location, facilities, or other problems) and the least likely to cite the trainers; private institutions were the most likely to

Table 3.8

Institutional Evaluation Of BEOG Training

	Public Institutions	Private Institutions	Proprietary Institutions	All Institutions
QUALITY OF TRAINING				
Percentage rating as:				
Excellent	34%	23%	31%	30% (5%)[3/]
Good	49	58	33	46 (8)
Fair	10	8	26	15 (4)
Poor	5	4	1	3 (1)
Useless	2	7	9	6 (3)
STRONG POINTS OF TRAINING				
Percentage Citing:[1/]				
Trainers	44%	53%	24%	41%
Materials	25	5	26	18
Exercises	11	17	10	13
Other	48	45	50	48
Percentage Not Responding[2/]	7%	20%	33%	20%
WEAK POINTS OF TRAINING				
Percentage Citing:[1/]				
Content	71%	53%	73%	66%
Trainers	12	23	17	17
Materials	9	6	7	7
Too Rushed	3	16	2	7
Other	13	8	9	10
Percentage Not Responding[2/]	25%	25%	18%	22%

[1/] Percentage citing of those institutions responding; percentages add to over 100 due to multiple answers.

[2/] Percentage of institutions participating in training that did not cite strong or weak points.

[3/] Standard errors in parentheses

cite the trainers and the pace (too rushed) and the least likely to cite the content, the materials, and other weaknesses; and proprietary institutions were the most likely to cite the content and the least likely to cite the pace.

A number of additional comments were received. Plaudits included general statements that training was good, that question and answer sessions were useful, that the discussion and materials were excellent. Examples of criticisms received include the timing of the sessions, their size, location, and attendance by the schools.

(3) Discussion And Summary Of OE-Sponsored Training

To summarize, institutional participation in OE-sponsored BEOG training programs has been high, and these programs have generally been well received. This was particularly true of public institutions. The data suggest that many schools are dissatisfied with one or more aspects of this training, and that, if possible, the programs should be made more responsive to the nature, needs, and problems of different types of schools and their representatives; this appears to be most important in the case of proprietary schools, which were least active in and most critical of BEOG training.

(4) Institutionally Sponsored Training

OE-sponsored training was frequently augmented by institutional training efforts; nearly half of all institutions (49%) conducted some type of internal training for financial aid staff. These were generally small sessions involving, on the average, 1.6 staff members per institution.

6. FISCAL OPERATIONS

(1) Progress Reports, Adjusted Authorizations, And Rosters

A variety of data on fiscal operations were collected, particularly with regard to the institutions' experience in preparing and submitting progress

reports, receiving adjusted authorizations, and receiving and reconciling rosters. On the subject of progress reports, 11 percent of the institutions reported having problems (time, technical, or other) in their preparation, and 8 percent reported that they had submitted an Ad Hoc progress report for the current year (no schools reported submitting more than one such report). These findings did not vary significantly by type of control.

Table 3.9 describes the institutions' experience in receiving adjusted authorizations for the current and/or previous years. Overall, almost 74 percent reported receiving the current year's authorization, an additional 24 percent reported receiving the previous year's but not the current year's, and 2 percent reported receiving neither the current year's nor the previous year's adjusted authorization. These figures varied somewhat by type of institutional control; private institutions had the highest percentage receiving both the current year's and neither year's authorizations, while public institutions had the lowest percentage receiving the current year's.

Turnaround times (between submitting progress reports and receiving adjusted authorizations) also varied within and between control types. Overall, turnaround time for the current year varied from 1 to 24 weeks, with an average turnaround of 6.6 weeks; for the previous year, turnaround was reported to range from 1 to 40 weeks, with an average of 6.2 weeks. For both years, private institutions reported the shortest turnaround times, while proprietary institutions reported the longest turnaround times.

Table 3.10 describes the institutions' experience in receiving and reconciling year-end rosters and reveals that private institutions have had considerably more success in this area than have public or proprietary institutions. Overall, 75 percent of the institutions reported that they had received their year-end roster for 1977-78, and of these, 75 percent have been able to reconcile these rosters with their records. The 25 percent unable to do so cited a variety of reasons, including lack of time, recent receipt of the roster, problems with student names, or computer problems. Of the schools that had either not received or not reconciled their 1977-78

Table 3.9

Adjusted Authorization Experience

	All Institutions
PERCENTAGE RECEIVING	
Current Year	74%
Previous Year	24%
Neither Year	2%
TURNAROUND TIME (WEEKS):[1]	
Current Year:	
Minimum	1
Typical[2]	6.6
Maximum	24
Previous Year:	
Minimum	1
Typical[2]	6.2
Maximum	40

[1] Between submission of progress report and receipt of adjusted authorization.

[2] Average for schools reporting.

Table 3.10

Year-End Roster Experience

	Public Institutions	Private Institutions	Proprietary Institutions	All Institutions
LATEST ROSTER RECEIVED:				
1977-78 (or later)	63%	89%	73%	75%
1976-77	35	10	16	20
1975-76	2	1	11	5
1974-75	<1	-	-	<1
ABLE TO RECONCILE 1977-78 ROSTER:1/				
Yes	62%	86%	73%	75%
No	38%	14%	27%	25%
Percentage Citing:2/				
Lack of Time	8%	1%	24%	11%
Just Received	7	4	4	5
Name Problems	3	1	2	2
Computer Problems	6	-	-	1
Other Problems	18	7	-	7
LATEST ROSTER RECONCILED:3/				
1976-77	63%	87%	64%	68%
1975-76	33	13	27	27
1974-75	2	-	-	1
None	2	-	9	4

1/ For those who received it

2/ Percentages may sum to greater than total percentage responding "no" due to multiple reason responses

3/ For those who had either not received or not reconciled 1977-78 roster

rosters, 68 percent reported that they had been able to reconcile their 1976-77 rosters, while 4 percent reported that they had not been able to reconcile any rosters.

These figures varied considerably by type of institutional control, as private institutions appear to have had considerably greater success in receiving and reconciling year-end rosters than have public or proprietary institutions. At the other extreme, public institutions generally had the worst experience in receiving and reconciling year-end rosters, with relatively fewer institutions receiving and reconciling the most recent rosters while encountering the greatest variety and quantity of problems reported.

(2) Problems And Assistance

The institutions were also asked whether they had any other special problems concerning fiscal operations; this information is summarized in Table 3.11. Only 22 percent of the institutions responding reported such problems, of which the most frequently cited was timeliness of funding (8 percent, including multiple responses), followed by reconcilation of accounts with OE (5 percent), reduction of funding by OE (3 percent), and other problems (6 percent). Not surprisingly, given the findings presented earlier in this section, a significantly greater percentage of public institutions reported problems than did private or proprietary institutions. Public institutions that reported problems most frequently cited timeliness of funding, reconciliation of accounts, and other assorted problems; private institutions primarily cited timeliness and reconciliation problems; and proprietary institutions most frequently cited reduction of funding along with timeliness problems. "Other problems" in Table 3.11 represent a range of issues: in-house processing problems, confusing regulations, a general lack of understanding of the funding process, and problems with authorization levels, adjustments to authorization levels, progress reports, and ad hoc progress reports were all cited.

Table 3.11

Special Problems With Fiscal Operations

	Public Institutions	Private Institutions	Proprietary Institutions	All Institutions
PROBLEMS:				
Percentage Of Schools Citing:[1/]	36%	17%	16%	22%
Timeliness Of Funding	13	8	6	8
Reconciliation Of Accounts With OE	10	6	-	5
Reduction Of Funding By OE	2	2	7	4
Other Problems	13	2	4	6
NO PROBLEMS	64%	83%	84%	78%

1/ Percentages may add up to greater than total problems percentages due to multiple responses.

In response to these and other problems, many of the institutions reported that they had requested assistance from the BSFA Area Desk, as shown in Table 3.12.

Overall, almost a third (33 percent) of the institutions requested some form of assistance regarding validation, progress reports, regulations, funding, policy, student problems, and/or other topics. Most of the institutions requesting such assistance appeared to be satisfied with the results, as indicated by the favorable quality ratings and the low percentage (6 percent) of institutions reporting that they were not satisfied. Public institutions most frequently requested assistance; proprietary institutions had the highest quality ratings for the assistance provided, with no institutions reporting that they were not satisfied; and private institutions requested assistance less frequently and had a lower opinion of the quality of that assistance than did either of the other control types.

(3) Discussion And Summary

The findings presented in this section reveal that a substantial number of institutions had difficulties with one or more aspects of fiscal operations: 11 percent reported that they had problems preparing progress reports; 26 percent had not received their adjusted authorization for the current year; 25 percent had not received their year-end roster for the current year, and, of those that had, 25 percent had not been able to reconcile them; 22 percent reported a variety of other fiscal operations problems; and 33 percent had requested some kind of assistance from the BSFA Area Desk. Significant and consistent differences existed by type of institutional control as well, with public institutions experiencing the most problems in almost every category and private institutions the fewest.

Table 3.12

BSFA Area Desk Experience

	Public Institutions	Private Institutions	Proprietary Institutions	All Institutions
Percentage Of Institutions Requesting Assistance From BSFA Area Desk	43%	22%	34%	33%
Quality Of Assistance:[1/]				
Very Satisfied	61%	50%	88%	69%
Moderately Satisfied	26	30	8	20
Somewhat Satisfied	4	10	4	5
Not Satisfied	9	10	-	6

[1/] For institutions requesting assistance

CHAPTER 4. INSTITUTIONAL PRACTICES

CHAPTER 4. INSTITUTIONAL PRACTICES

This chapter continues the summary of interview data provided by the 210 financial aid officers in the sample. As such, the interpretation of the estimates presented should be tempered with a judicious consideration of the limitations described in Chapter 3. In particular, the precision of the estimates presented is such that the data should be used for insights and interpretations which are not sensitive to the precise numerical value of the estimate (i.e., the same conclusions would be drawn if the estimate were 5 or 10 percent higher or lower). The principal topics covered in this chapter include: policies concerning Satisfactory Academic Progress, refund and repayment policies, enrollment status determinations, institutional validation activities, and other practices.

1. SATISFACTORY ACADEMIC PROGRESS

In order to qualify for a Basic Grant a student must be making "satisfactory academic progress" according to the standards of the school which he/she is attending.

Information on Satisfactory Academic Progress (SAP) policies and practices obtained from the institutional interviews was augmented by school catalogues and other printed materials for most of the same institutions. Published policies were categorized according to whether they evaluate the quality of student effort and/or the quantity of progress. Other dimensions included the type of grading system used to evaluate the quality of work, explicit mention of financial aid in the policy, and other factors.

As Table 4.1 shows, 96 percent of the schools for which this information was available (representing 81 percent of the BEOG institutional universe) had a written SAP policy. Virtually all of these policies contained a quality element:

TABLE 4.1

Description Of Satisfactory Academic Progress (SAP) Policies

	Public Institutions	Private Institutions	Proprietary Institutions	All Institutions
Percentage Of Institutions For Whom Data Available	86%	86%	74%	81%
Percentage of Institutions With Written SAP Policy In Catalogue (Of Those Available)	99%	97%	93%	96%
Percentage Of Policies With Quality Element:	100%	100%	100%	100%
Percentage Of Policies With Quantity Element:	32%	9%	2%	14%
Percentage Of Policies With[1/] Financial Aid Element:	53%	61%	31%	49%
Percentage Of Policies With[2/] Punitive Grading Element:	91%	91%	88%	90%
Percentage Of Policies With Attendance Element:	5%	8%	40%	18%
Percentage Of Institutions Distinguishing Between BEOG And Other Financial Aid Recipients (Based On Full Sample Data)	6%	<1%	1%	2%

1/ Specifically mentioned relation of financial aid to satisfactory progress.

2/ That is, policies where the quality point computation was such that the student might not make satisfactory progress.

55 percent contained an ungraduated numeric requirement such as maintaining a 2.0 grade-point average (GPA); another 30 percent contained graduated numeric requirements such as maintaining a 1.8 GPA as a freshman and a 2.0 GPA thereafter; and the remaining 15 percent had essentially subjective quality standards for SAP.

Only 14 percent of these SAP policies contained quantity elements, and most of these institutions were under public control. Quantity elements found in SAP policies included ungraduated credit requirements such as completing nine units per term; graduated credit requirements such as completing six units per term as a freshman and nine per term thereafter; ungraduated completion rate requirements (e.g., 75 percent of all units enrolled for); graduated completion rate requirements; and other requirements.

The SAP policies had other significant elements as well. About half of the policies contained elements relating to financial aid;[1/] this was most true of private institutions and least true of proprietary schools. Most of these financial aid elements linked financial aid to making SAP; the remaining elements either linked financial aid to eligibility for enrollment or had distinctions that were unclear. Almost all of the policies (90 percent) graded so that low or failing grades were included in the student's GPA, but a significant percentage did not. A much smaller portion of the policies (18 percent) contained attendance elements (such as a maximum number or percentage of absences), and most of these institutions were under proprietary control. Finally, the full-sample institutional interview data reveal that 2 percent of the institutions (and 6 percent of public institutions) distinguished between BEOG and other financial aid recipients in their SAP policies.

Public institutions tended to have stricter published SAP policies (most objective quality elements, most quantity elements, strongest financial aid elements) than private or proprietary institutions. Public institutions also most

---

[1/] It is not necessary for an institution to publish that financial aid eligibility is linked to satisfactory academic progress. Rather, it is only necessary that it be, in fact, linked.

frequently distinquished between BEOG and other aid recipients. At the other extreme, proprietary schools recorded fewer and more lenient policies (except for a higher incidence of attendance elements) in their catalogues, while private institutions least frequently differentiated between BEOG and other aid recipients.

Table 4.2 displays data from the institutional interviews on the responsibility for and frequency of SAP determination. The responsibility varied considerably both within and between control groups. Financial aid and/or deans' offices were most often responsible for determining if a student was making SAP, but others responsible included registrars, department heads, and other offices and/or officials; one in 10 of the institutions reported that two or more offices were responsible. Financial aid offices were responsible for SAP determination in most public institutions, dean's offices were most frequently responsible in private institutions, and other offices were most frequently responsible in proprietary institutions. Multiple responsibility (more than one office) was most common among public schools and least common among private institutions.

Frequency of SAP determination also varied within and among control groups. Overall, semiannual determinations were most common, followed by quarterly determinations, but nearly one institution in five determined SAP monthly or weekly. Proprietary institutions determined SAP considerably more frequently than did either public or private institutions; of those institutions reporting monthly or weekly determination, 92 percent were proprietary (100 percent of those reporting weekly determination).[2/] Private institutions, on the other hand, determined SAP the least frequently, with only 17 percent reporting that they made such determinations more than twice per year.

To summarize, the vast majority of BEOG institutions have formal SAP policies standards for quality of work, quantity of work, and/or attendance. Quality standards (e.g., grade point averages) are most frequently used, while standards

---

[2/] In some cases, proprietary schools only required regular attendance in their policies. Thus, checking the policy may only be a matter of recording and evaluating attendance.

TABLE 4.2

Responsibility For And Frequency Of SAP Determination

	Public Institutions	Private Institutions	Proprietary Institutions	All Institutions
RESPONSIBLE OFFICES:[1]				
Financial Aid	57%	16%	14%	27%
Dean	22	32	22	26
Registrar	20	17	5	14
Department Heads	2	7	14	8
Other	17	30	54	35
INSTITUTIONS WITH MORE THAN ONE RESPONSIBLE OFFICE	14%	3%	10%	9%
FREQUENCY OF DETERMINATION:				
Weekly	—	—	25%	10%
Monthly	4%	1%	19	9
Quarterly	36	16	12	20
Semiannually	43	68	16	41
Annually	8	2	3	4
Other	10	12	24	16

[1] Frequencies add to over 100 percent due to multiple responses

for quantity are less frequently implemented. Attendance policies are primarily restricted to the proprietary sector. The quality of the articulation of the policies varied tremendously as many policies ignored issues such as the relation of satisfactory progress to financial aid or the effect of "probation" status on whether or not the student could receive aid. Certain practices, such as deleting all substandard grades from the computation of the quality point average, or allowing a student to withdraw without prejudice at any time in the academic term, appeared to violate the spirit of the satisfactory progress requirement (but are within the letter of the law according to BSFA interpretation).

Public institutions were found to have the most extensive and the strongest policies, while proprietary institutions generally had the weakest policies. Also, responsibility for and frequency of SAP determination were found to vary considerably, both within and among control groups.

As noted in the previous chapter, approximately .8 percent of recipients were found not to be making satisfactory progress according to the institution's written standard.

2. REFUND AND REPAYMENT

In this section, interview data have been weighted to produce aggregate estimates from the financial aid officers on the extent of activity associated with overpayments, refunds, and repayments. Because these terms are often misused, the definitions employed will be stated at the outset:

- An overpayment is the disbursement of an excess amount of Basic Grant funds, for any reason, whether the monies were remitted to the student or applied against an institutional bill. An overpayment may occur because of incorrect student application data, because the institution erred, or for other reasons.

- A refund is a payment by the institution back to the student and/or the Basic Grant account. The primary reason for a refund is generally that the student dropped out or reduced his/her workload. The refund is determined in accordance with institutional policy and divided between the student and the Basic Grant account in accordance with OE requirements.

A repayment is a remittance by the student or by the institution which is found to be necessary pursuant to an overpayment. Institutions are liable only for repayments due to institutional errors; although it is not required, an institution may attempt to collect repayments caused by student actions. The repayment is credited to the Basic Grant account according to a computation which takes into account other sources of financial aid.

It should be noted that the application of refund and repayment policies is an ongoing process which cannot be fully evaluated until an award period has ended. The data reported relate to the experiences of the schools in this area only up to the time of the interviews. As such, it presents an incomplete picture and should be evaluated with these limitations in mind.

(1) Institutional Experience With Overpayment and Recoveries

As Table 4.3 shows, student dropouts were the primary reason for overpayments. At least one dropout-related overpayment was experienced by 27 percent of the institutions, and more than half of all institutions made awards to students who enrolled and dropped out or never enrolled. (The inference can be made that a certain percentage of students drop out but do not create overpayments. This can happen in several ways: students who drop out after the refund period do not create an overpayment situation by dropping out; some schools may have computed awards but not disbursed them; and some schools might not consider a dropout to be creating a potential overpayment, but rather a potential application of the refund policy.)

Dropout-related overpayments were reported to occur about twice as frequently as overpayments associated with calculation errors. Other reasons cited much less frequently included OE validation[3/] and ineligible students.

3/ Note that OE validation is a preaward process, so that an overpayment should not be discovered in that manner. Whether potential overpayments were averted or whether payments were made before the SER was validated is not known.

TABLE 4.3

BEOG Overpayments By Reason*

Reason	Average Number Per Institution	Percentage Of Institutions With At Least One
Drop Out	2.2	27%
Calculation Error	0.9	12%
OE Validation	0.4	3%
Ineligible Student	0.2	4%
Other	0.2	1%

BEOG Awards To Dropouts

Percentage Of Institutions Making One Or More Awards To Students Who...	Public	Private	Proprietary	All Institutions
Never Enrolled	1%	1%	-	1%
Enrolled But Dropped Out	61%	42%	50%	50%

* This represents the experience from approximately the first half of the award period.

Virtually all of the institutions reporting overpayments (98 percent) made one or more attempts to recover these funds. Deducting from the student's next payment (48 percent) and/or billing the student (44 percent) were the most common methods cited for attempting to recover overpayments. Other methods mentioned included adjusting the student's account (17 percent), obtaining a signed agreement (14 percent), writing the student (9 percent), suspending the next payment (9 percent), or not allowing reenrollment.

(2) Institutional Refund Policies

Data on institutional refund policies were obtained from institutional catalogues collected by Macro staff during the institutional interviews. Because catalogues were only available for 74 percent (weighted) of the institutions, and because some of the catalogues did not contain data on refund policies, this information should only be used to draw qualitative inferences. In spite of these limitations, however, several significant findings emerge from the data.

Table 4.4 shows that 78 percent of the institutions with catalogues had some sort of tuition refund policy. Most policies did not specifically identify whether room, board, and other fees were refundable; only 16 percent of the institutions specifically provided for fee refunds, 11 percent provided for refunds of room expenses, and 17 percent provided for refunds of board expenses. Most of these policies were graduated; that is, the amount to be refunded decreased over time.

The characteristics of the published tuition refund policies are displayed in Table 4.5; considerable variation both within and among the three control groups is shown. Cutoff dates for full tuition refund ranged from before registration to after three weeks of classes, with proprietary institutions tending to have the strictest (earliest) dates and public institutions the most lenient (latest) dates. Cutoff dates for partial refunds of tuition ranged all the way up to the 14th week of the term with public institutions tending to have the strictest dates and private institutions the

TABLE 4.4

Description Of Institutional Refund Policies

	Public Institutions	Private Institutions	Proprietary Institutions	All Institutions
Percentage Of Institutions* With:				
TUITION REFUND POLICY	80%	62%	93%	78%
- Ungraduated	12	7	6	8
- Graduated	68	55	87	70
BOARD REFUND POLICY	13%	32%	4%	17%
- Ungraduated	-	1	-	1
- Graduated	13	31	4	16
FEE REFUND POLICY	21%	7%	18%	16%
- Ungraduated	5	5	16	9
- Graduated	16	2	3	7
ROOM REFUND POLICY	13%	18%	0%	11%
- Ungraduated	1	1	-	1
- Graduated	12	18	-	10

* For institutions with catalogues only

TABLE 4.5

Characteristics Of Tuition Refund Policies By Control

	Public Institutions	Private Institutions	Proprietary Institutions	All Institutions
CUTOFF DATE FOR FULL REFUND:[1]				
Prior to Registration	12%	6%	-	5%
Within One Week of Enrollment	-	-	76%	42
1st Day of Class	49	59	24	36
2nd Day of Class	-	9	-	1
End of 1st Week	25	13	-	10
End of 2nd Week	13	12	-	6
End of 3rd Week	1	1	-	1
CUTOFF DATE FOR PARTIAL REFUND:[2]				
End of 1st Week	3%	-	-	1%
End of 2nd Week	37	13%	1%	16
End of 3rd Week	9	4	3	6
End of 4th Week	35	40	17	29
End of 5th Week	8	17	2	8
End of 6th Week	5	7	-	3
End of 7th-8th Week	1	9	-	3
End of 9th-10th Week	-	1	4	2
End of 14 Weeks	-	8	-	2
Late Registration Date	2	-	-	1
Quarter of Course	-	-	4	2
Half of Course	1	-	69	27
ALLOWABLE CRITERIA FOR REFUND:[3]				
Withdrawal	88%	80%	100%	90%
Illness	12	20	-	10
Exceptional Circumstances	6	13	-	6
Moving	6	2	-	3
Not Accepted	-	5	1	2
Military	1	3	-	1

[1] Percentages based only on schools with cutoff dates specified (N = 1703)

[2] Percentages based only on schools with cutoff dates specified (N = 3085)

[3] Percentages based only on schools reporting criteria (N = 3316); percentages add up to greater than 100 due to multiple criteria

most lenient. Withdrawal from school was the principal criterion for obtaining a refund; other criteria included illness, exceptional circumstances, moving, not being accepted for enrollment, and military service.

(3) Problems And Discussion

Seventeen percent of the institutions reported problems in using the OE formula to determine how to credit their BEOG accounts when refunds were due.[4/] The most commonly cited problem was that the formula was complicated and/or confusing (10 percent), although conflicting State/Federal guidelines were also claimed. Some FAOs felt that the formula resulted in students being overpaid.

In summary, a significant percentage of institutions (particularly public ones) made BEOG overpayments and for a variety of reasons. The absolute and relative numbers of such overpayments were fairly small, however, and almost all of the institutions making overpayments attempted to recover these funds, although some institutions had problems with OE's refund formula. Institutional policies on refund of tuition, fees, room, and/or board were found to vary considerably, and this undoubtedly exacerbated these problems.

3. EVALUATION OF ENROLLMENT STATUS

(1) Types Of Academic Calendar And Credit Systems

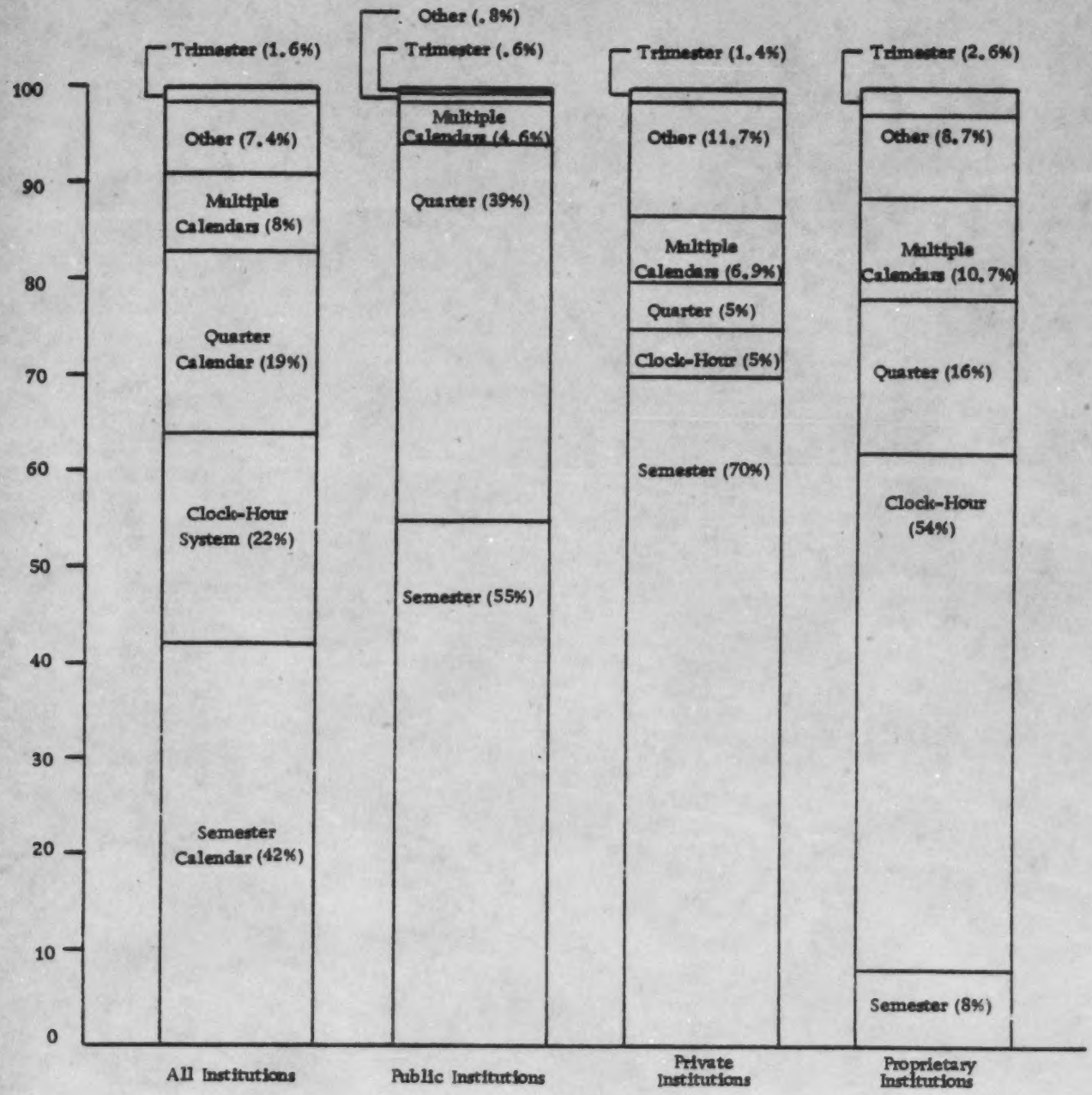
The evaluation of enrollment status was complicated by the wide range of academic calendars, credit measurement systems, and full-time criteria found among the BEOG institutions. Exhibit 4-I breaks down the types of academic calendars used by the institutions, and reveals variations within and between control groups. Overall, the semester calendar was most

---

4/ There was an error in the 1978-79 Student Financial Aid Handbook, which was noted in the BSFA Bulletin.

EXHIBIT 4-I

TYPES OF ACADEMIC CALENDARS USED



common (42 percent), followed by clock-hour system (22 percent), quarter calendar (19 percent), trimester calendar (2 percent), multiple calendars (8 percent), or other calendars (7 percent).

The majority of public institutions (55 percent) were on a semester calendar, with almost all of the remainder (39 percent) using a quarter calendar. An even larger majority of private institutions (70 percent) were on a semester calendar, while the remainder used a variety of other types of calendars. Finally, proprietary institutions were different in that the majority (54 percent) were on a clock-hour system; proprietary institutions also differed in that they had the lowest percentage (8 percent) using semester calendars and the highest percentage (11 percent) using multiple calendars.

Credit measurement systems also varied among and within control groups, as shown in Exhibit 4-II. Overall, academic hours of instruction was the most common system (61 percent), followed by clock hours (36 percent), multiple systems (2 percent) and others.[5/] Public and private institutions were fairly similar in that both primarily used academic hours (81 percent of public and 92 percent of private institutions). Proprietary institutions were again very different, however, as the vast majority (83 percent) used clock hours, with only 17 percent using academic hours.

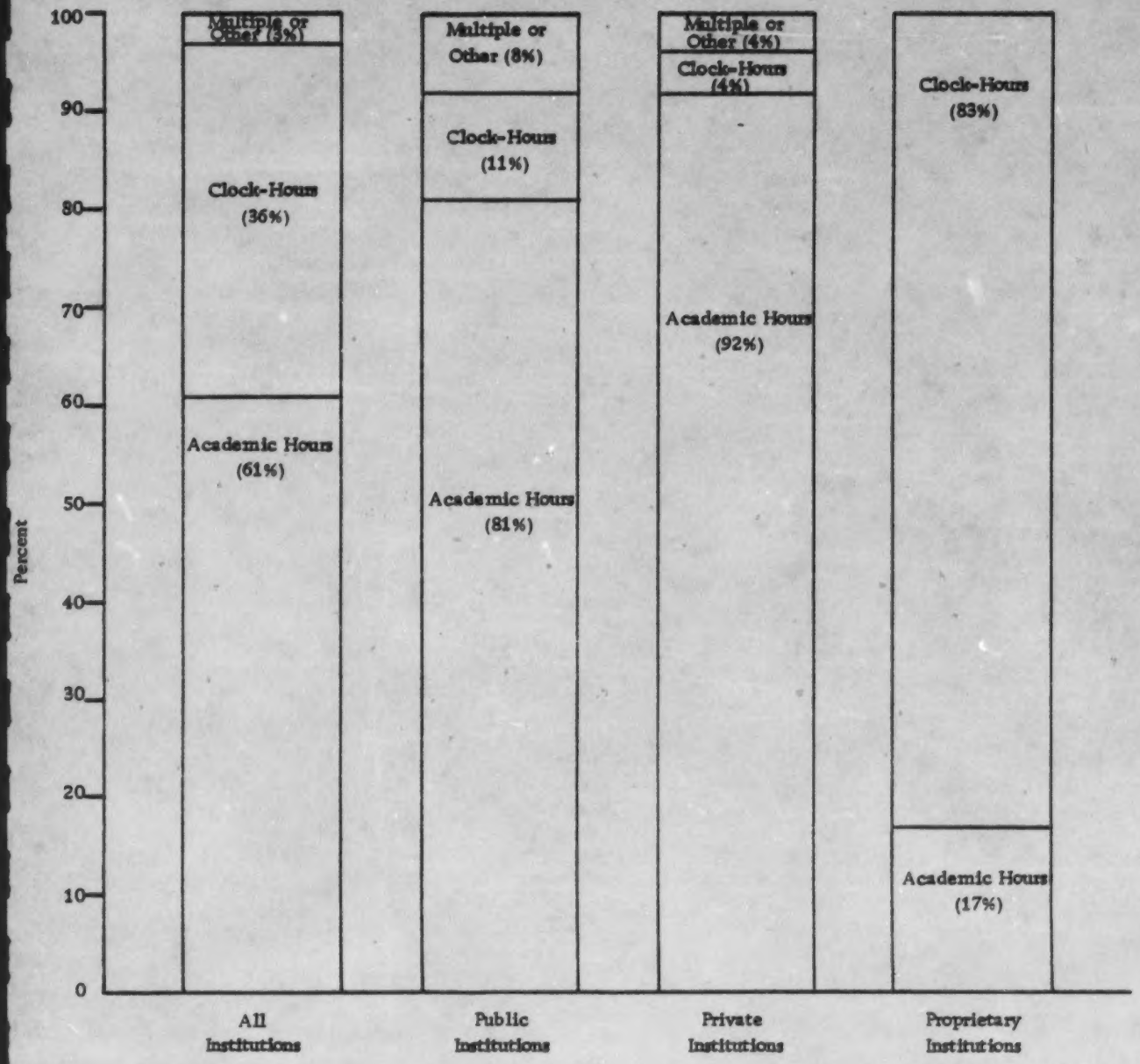
Not surprisingly, given this variety in academic calendars and credit measurement systems, the criteria for full-time enrollment (both months and units) also varied considerably. The majority of institutions (56 percent) required full-time students to be enrolled nine months per year, with an additional 26 percent requiring 10-12 months of enrollment, 9 percent requiring only six to eight months, and 9 percent responding that months of full-time enrollment differed by program. Most public and private schools used the nine-month basis (80 percent of public and 74 percent of

---

5/ Examples include schools whose measures vary by program or schools which have one unit per course.

EXHIBIT 4-11

TYPES OF CREDIT MEASUREMENT SYSTEMS USED



private institutions), while the largest percentage of proprietary institutions (41 percent) required full-time students to attend 10-12 months per year. The percentage of proprietary schools indicating that months of full-time enrollment differed by program (22 percent) was much higher than for public or private institutions.

Minimum units per term for full-time status also varied considerably. For those institutions using credit hours, 72 percent required full-time students to be enrolled for at least 12 credits. This was particularly true of public institutions, 91 percent of which used the 12 credit minimum, and it was least true of proprietary institutions, with only 49 percent using a 12 credit minimum and with 24 percent requiring less than 12 credits. The range in minimum full-time clock hours was also substantial. Among those institutions using clock-hours, 12 percent indicated that the minimum requirement differed by program; this was most true of private schools (53 percent) and least true of proprietary schools (2 percent).

(2) Enrollment Status Verification

Given this background of relatively heterogenous methods of workload measurement even within single schools, it is easy to see why some institutions may not always check or enforce requirements for enrollment status. In particular, 7 percent of the institutions reported that they computed (or certified) awards without specifically checking the student's enrollment status; 4 percent indicated that they had disbursed (or certified) payments without checking the student's enrollment status; and 1 percent reported that they had made (or certified) awards to students in a less-than-half-time status (occasionally an admission of error seemed to be based not on specific information, but rather on the probability that such an event had occurred.)

However, virtually all of the institutions reported that they recalculated expected disbursements based on enrollment status. Over half (57 percent) said that they recalculated whenever enrollment status changed, even though it is not required by regulation (except at the beginning of a

payment period); 35 percent recalculated before each disbursement; 28 percent recalculated before each pay period;[6/] 5 percent recalculated at the beginning of each term; and 13 percent recalculated at other times (percentages add to over 100 due to multiple responses).

(3) Discussion And Summary

The definition and determination of enrollment status is clearly complicated by the wide variety of academic calendars, credit-measurement systems, and full-time criteria found among the BEOG institutions. Many of these variations represent sizeable deviations from the standard practices and are difficult to compare and/or translate. It seems likely that this has contributed to the fact that a small but significant number of institutions do not routinely verify enrollment status before computing or disbursing awards; the extent of these exceptions will be discussed later in this chapter.

4. INSTITUTIONAL VALIDATION PRACTICES

(1) Extent Of Institutional Validation

In addition to validation done in response to OE initiatives, many of the institutions conducted their own validation activities. As shown in Table 4.6, the most extensively documented element is income, with 42 percent of the institutions claiming to have a formal or informal policy of documenting BEOG students' incomes. Much of this validation was done on a random or suspicious-circumstance basis, as only 13 percent of the institutions claimed to validate every student. Overall, the responses of the sample would indicate that approximately 22 percent of all BEOG students have had their income documented.

6/ Fifty percent recalculated before each disbursement or before each payment period.

Information on citizenship/residency and asset/debt validation was also collected, although it was not directly comparable to the income validation data. Nineteen percent of all institutions indicated that they validated all BEOG students' citizenship/residency, with a total of roughly 10 percent of the BEOG students having had this element verified to some degree. For assets/debts, 4 percent of the institutions claimed to document all students, and approximately 10 percent of all BEOG students have had these elements documented. For comparison purposes, the documentation level of student records in the student financial aid office files[7/] indicate that 17 percent of the student files contained income verification information; 1-3 percent of the files contained some sort of asset/debt documentation; and 37 percent contained citizenship/residency information (of which almost all was in the form of institutional financial aid application data). Thus, it would seem that there is a relatively high level of documentation of income, a relatively low level of documentation of assets/debts, and alternative sources of information on citizenship/residency (although they are not necessarily independent documentation--a tax form might provide information, while a birth certificate would be considered documentation).

FAOs from proprietary schools claimed to validate student incomes much more often than did FAOs from other types of schools. They indicated that 18 percent of the proprietaries validated the income of all of their students. Further, their reports implied that about 72 percent of all proprietary school BEOG recipients were validated. Our review of records at the proprietary schools found that incomes were documented for only 16 percent of their students. Agreement was much better for public and private schools in that they reported 14 percent and 25 percent of their students, respectively, had their income validated, and 16 percent and 23 percent of their files, respectively, actually contained such documentation.

7/ These data come from 2,300 student record abstracts in the sample.

TABLE 4.6

Institutional Validation Activities

	Public Institutions	Private Institutions	Proprietary Institutions	All Institutions
INCOME DOCUMENTATION:				
Percentage Of Institutions Requiring:				
- For Any Students	46%	41%	41%	42%
- For All Students	7%	12%	18%	13%
Percentage Of Total Recipients For Whom Required	16%	23%	72%	22%
ASSET/DEBT DOCUMENTATION				
Percentage Of Institutions Requiring:				
- For All Students	4%	6%	1%	4%
Percentage Of Total Recipients For Whom Required	5%	12%	50%	10%
CITIZENSHIP/RESIDENCY DOCUMENTATION				
Percentage Of Institutions Requiring:				
- For All Students	19%	19%	19%	19%
Percentage Of Total Recipients For Whom Required	8%	4%	44%	10%

(2) Types Of Information Collected

Several types of documentation were collected for each of these items, with many institutions collecting more than one type. As Table 4.7 shows, however, one type of documentation tended to prevail for each item. Federal tax returns were the most common type of documentation for income (collected exclusively or in combination by 93 percent of the institutions documenting); income tax forms were the most common type of documentation for assets/debts (86 percent); and the Form 1-151 Alien Registration Receipt was the most common type of documentation collected for citizenship/residency (69 percent).

Many of the institutions also collected and used information on student VA assistance as part of their validation activities. Such information was always provided on a routine basis to 62 percent of the institutions and was occasionally provided to an additional 24 percent. Of those institutions obtaining information on student VA assistance, 60 percent used it to validate SER data; however, the use of this information only resulted in an average of less than 2 corrections per institution.

(3) Timing And Institutional Evaluation

The institutions were asked to evaluate their experience in four aspects of income validation. The institutions indicated that their own efforts in validating were successful: about three out five schools felt that they achieved "excellent" results in obtaining documentation from student and in detecting errors. They were less successful in getting timely reports for students and in attempting to use selective criteria for validation ("excellent" 23 and 38 percent, respectively). A high proportion (82 percent) of the institutions that had income validation policies (35 percent of all institutions) indicated that they had initiated their own institutional policy on income validation before OE initiated its policy.

TABLE 4.7

Types Of Institutional Validation Documentation Collected

Type of Documentation	Institutions Collecting Documentation[1/] [3/]	All Institutions[2/] [3/]
INCOME		
Federal Tax Returns	93%	39%
Nontaxable Income Statements	57	24
W-2 Statements	42	18
Educational Benefit Statements	41	17
State Income Tax Returns	24	10
Other	26	11
ASSETS/DEBTS		
Income Tax Forms	86	61
Property Value Statements	33	23
Tax Assessments	15	11
Lawyer/Accountant Statements	14	10
Notes	12	9
Payment Notices	8	6
Real Estate Company Statements	6	4
Other	36	26
CITIZENSHIP/RESIDENCY		
Form 1-151 Alien Registration	69	43
Birth Certificate	19	12
INS Form	16	10
Immigration Data	15	9
Other	23	14

1/ Percentages for each type of documentation are based only on the schools reporting some kind of documentation of that type collected for at least some students

2/ Percentages are based on all schools. Because of the way in which asset/debt and citizenship/residency questions were posed, there is the possibility of a general upward bias in these estimates

3/ Percentages may add to greater than 100 due to multiple responses.

(4) Discussion And Summary

As noted earlier, many of the institutions conducted their own validation of income, assets, and/or citizenship in addition to satisfying OE validation requirements. Several different types of documentation were collected for each item, with many institutions collecting more than one type. Proprietary institutions claimed to validate most frequently. Most of the institutions which conducted internal validation reported that they had initiated these activities before OE's requirement was imposed (this was most common among public institutions and least common among proprietary institutions), and that these activities had been reasonably successful. In total, the FAOs estimated that 22 percent of all BEOG recipients had to provide documentation of income, 10 percent had to document assets/debts, and 10 percent had to document citizenship/residency.[8/] These figures are all higher than the percentage selected for OE validation (7 percent) and suggest a generally high level of institutional validation.

5. OTHER PRACTICES

Two additional practices of the BEOG institutions merit a brief examination. First, the institutions were asked about the existence and enforcement of "good standing" policies for acceptable social behavior. Sixty-four percent of the institutions reported having a formal good standing policy, while an additional 22 percent had informal policies. In terms of enforcement, however, most (83 percent) indicated that they have rarely or never withheld a BEOG payment for violation of this policy.

Data was also collected regarding special measures taken to prevent fraud and abuse in the BEOG program. About 70 percent of the institutions reported taking one or more of the following measures: institutional documentation and

---

8/ Each FAO was asked to estimate the number of BEOG recipients on campus and the number of recipients that had been validated. These estimates were weighted to produce the total number validated and the total number of recipients. Finally, the former quantity was divided by the latter to derive the percentage validated.

validation, meeting directly with students, checking tax data, disbursement procedures, checking SER data, and other (unspecified) measures.

6. OTHER POTENTIAL BASIC GRANT AWARD ERRORS

As part of the interviews, the financial aid officers were asked whether awards had been made under circumstances not in accordance with program regulations. Their responses ranged from such statements as "Of course not, that's against the regulations," to admissions based on the probability that such an award was made ("I would guess that some of our Basic Grant recipients have defaulted on loans"), to admissions based on specific knowledge ("He needed the money, but the application processor kept rejecting his application"). Thus, the data do not permit the reliable estimation of error rates in this area and should not be used in that manner. Another factor to consider is that financial aid officers have had to rely upon their judgments in dealing with regulations they view as complex and confusing and seem to be, in many cases, more oriented to producing equitable results than to complying in every detail with program regulations.

In general, very few institutions indicated that they had made awards which were not made in accordance with program regulations. In Table 4.8 are listed the primary reasons for which awards were made erroneously and the percentage of institutions making one or more such awards.

The Affidavit of Educational (AEP) purpose requirement was most often ignored (11 percent), although the institutions cited circumstances such as their notary being sick, the AEP being lost, etc. The next most common error dealt with awards to students who were not making Satisfactory Academic Progress in the opinion of the FAO (7 percent). Awards were made when cases were under appeal, for students on probation, and for other reasons.

A number of other requirements were examined, with less than 2 percent of the institutions acknowledging erroneous awards with respect to each requirement.

Certain comments are in order concerning some of the categories reported in Table 4.8:

- By "significant" OE validation discrepancies, we are referring to discrepancies beyond OE-established tolerance limits.
- The responses concerning discrepancies in institutional validation showed an overall level of 9 percent of institutions making awards when discrepancies were discovered. Nonetheless, 7 percent of the institutions justified these awards because the discrepancies were within OE validation tolerance limits or because they judged them to be insignificant. It is interesting to note that the tolerance limits set by OE in their validation activities appear to have become guidelines for institutions in their own validation activities.
- Awards to students possessing bachelors' degrees were made exclusively by public and private schools in the sample.
- Awards to students in ineligible programs were made exclusively by proprietary schools.
- Some institutions making awards when valid SERs were not in file indicated that they did so in accordance with the "emergency" procedures instituted by OE in late 1978.

7. CONCLUSIONS

This chapter has presented a number of statistics on BEOG institutional practices, concerning a wide variety of policy areas. The significance of these issue and policy areas makes it worthwhile to reiterate the principal findings. On the subject of Satisfactory Academic Progress (SAP), virtually all of the institutions (for whom data was available) have formal policies. However, many of these policies were weak and/or subjective, with less than half of the policies specifying any relationship between SAP and financial aid; less then one-seventh of the policies had any sort of quantity requirement (relative or absolute amount of work completed), and one-tenth of the policies did not include failing grades in the computations of grade point averages for SAP determinations. In general, public institutions were the strictest in this area and proprietary institutions the most lax.

TABLE 4.8

Erroneous Institutional Awards Of Basic Grants

Reason	Percentage of all Institutions Making One or More Awards
No Valid Affidavit of Educational Purpose	11%
Not making Satisfactory Academic Progress	7
Significant Institutional Validation Discrepancies	2
Significant OE Validation Discrepancies	2
Student Possesses Bachelor's Degree	2
In Ineligible Program	1
Without Valid SER	1
Less than half-time	1
Currently in default on loan or grant	1

On the subject of refunds and repayments, over a third of the institutions reported making BEOG overpayments in the preceding year, but virtually all of those institutions attempted to recover the overpaid funds. Public institutions had the highest incidence of overpayments and proprietary institutions the lowest; public institutions were also the most diligent in attempting to recover overpayments, while private institutions were the least diligent (although the difference was fairly small). Students dropping out caused the greatest number of overpayments and deducting from the next payments or billing the students were the most popular methods of recovery.[9/] In addition, public institutions were the most likely to report problems with using OE's refund formula (over a fifth citing one or more such problems), while proprietary institutions were the least likely (only one-tenth cited problems).

On the subject of enrollment status, small percentages of institutions reported that (a) they did not check enrollment status before computing awards, (b) they did not check enrollment status before disbursing payments, and/or (c) they made awards to students in less-than-half-time status. Virtually all of the institutions reported, however, that they recalculated expected disbursements at least once a year, and over half recalculated whenever enrollment status changed. In addition, the myriad of academic calendars, credit measurement systems, and full-time criteria, which differed both within and between control groups, undoubtedly made enrollment status evaluation difficult for many schools and probably contributed to the aforementioned exceptions.

On the subject of institutional validation practices, institutions frequently required documentation of income, assets, and/or citizenship for their own purposes. Although a greater percentage of public institutions tended to require such documentation than did private or proprietary schools, the latter (especially proprietary institutions) were more diligent in terms of the percentages of institutions validating all students and the percentages of recipients validated. Although a variety of documentation materials were collected for each element,

---

9/ Institutional policies on refunding tuition, fees, room, and/or board were found to vary considerably.

with many institutions collecting more than one form of documentation, one type dominated in each of the three categories: Federal tax returns were the most common type of income documentation; income tax forms were the most common type of asset/debt documentation; and Forms 1-151 were the most common type of citizenship/residency documentation. Most of the institutions with internal validation policies reported that they had initiated these policies before required by OE; this was most common of public and private institutions and least common among proprietary institutions.

On the subject of what were referred to as "other" practices, over three-fifths of the institutions had formal good standing policies, with another fifth having informal policies. Enforcement of these policies appeared to be somewhat weak, however, with almost three-fourths of the institutions reporting that they never withheld BEOG payments for violations of good standing policies. The existence and enforcement of these policies was greatest for proprietary institutions and lowest for public institutions. Meanwhile, about 70 percent of the institutions reported that they took one or more special measures to avoid fraud and abuse, the most common of which were institutional documentation and validation or meeting directly with students.

Finally, a small percentage of institutions made potentially erroneous BEOG awards in many different situations. Awards made without Affidavits of Educational Purpose or when a student was not making Satisfactory Academic Progress were admitted by 11 percent and 7 percent of schools, respectively. Less than 2 percent acknowledged erroneous awards due to violations of other regulations.

CHAPTER 5. CONCLUSIONS AND RECOMMENDATIONS

CHAPTER 5. CONCLUSIONS AND RECOMMENDATIONS

This Chapter presents conclusions and recommendations for action based upon our experience in conducting this study. These recommendations are primarily motivated by the results of the research effort, although some arise from our experience in attempting to conduct the research (for example, recommendations on the articulation of satisfactory progress policies arising from the difficulty of applying the stated policies). They in no way represent official positions of the Bureau of Student Financial Assistance.

The Chapter is organized into three sections: Student Sector Actions, Institutional Sector Actions, and Other Actions.

1. STUDENT SECTOR ACTIONS

The central conclusions we draw from the student discrepancy analyses are:

- There is a relatively high level of total dollar error attributable to application-item discrepancies.
- This error results in significant numbers of both overawards and underawards of moderate amounts for a high proportion of applicants.
- The numbers of applicants with large overawards is small and the total dollar error in overawards associated with these applicants is small.

Thus, in developing strategies for reducing error, primary emphasis should be placed upon the large segment of students making moderate errors (positive and negative). To reduce error on such a large-scale will necessarily imply making certain changes in the program and its delivery system.

There are basically four points of intervention in the Basic Grant cycle:

- The application phase during which the initial application is completed and submitted
- The corrections phase during which the application is screened by the application processor and changed by the applicant
- The preaward phase during which the student brings the valid SER to school and an expected disbursement is computed
- The postaward phase during which payments are made

In assessing the relative merits of initiatives in each stage, it becomes quite clear that the reduction of error in the first stage is most desirable. If applications are initially accurate, then the burden upon all participants in the system will be reduced at each succeeding stage. The volume of corrections will decline, thereby easing the burden on the application processor and the student. Because the number of students rejected should decline, the number of rejected students who do not reenter the system should also decline. The need for preaward validation would be reduced.

Nonetheless, significantly reducing error at the application stage is a difficult problem because potential applicants are not systematically identified and they often have little contact with the financial aid officer. The primary strategy pursued to date to control application error has concentrated upon revising and simplifying the application. While this is desirable, our data indicate that this approach may have only a limited potential success because of the way in which applications are completed, the type of data required, and the time at which they are required.

The profile of the way in which students and parents complete their applications is not encouraging. Applicants frequently use estimates in completing the application. Many applications are completed entirely by dependent students, 5 percent of the applicants never read any instructions and one-third of the applicants only read them "when necessary." Forty percent review the returned SER briefly or not at all, and despite the fact that discrepancy rates are high,

applicants indicate that they have relatively little trouble with the application elements.[1/]

Given this profile it would appear unrealistic to rely solely upon changes to the application and instructions to produce accurate data on the original application. It would appear necessary to attempt to change the manner in which applications are completed. We would suggest that strategies be developed to attain the following objectives:

- Increased availability of assistance, both reactive and proactive
- Increased emphasis upon the process of completing the application, to include emphasis on assembling, using, and retaining records.

(1) Technical Assistance To Students

Reactive assistance is that which is provided in the instances when the applicant determines that assistance is needed. Currently, the applicant is directed to his local high school guidance counselor or to his student financial aid officer. While such an approach may be appropriate for those applicants still in high school and those applicants continuing enrollment in a particular school, it fails to recognize those students who are not currently enrolled, who do not reside near their intended school, or who have not chosen a school.

R1: BSFA should consider a program of telephone assistance to students completing their initial application.

The key elements of the assistance program are that it be easily accessible, and that it provide specific advice on completing the application.

[1/] The question arises as to the implications of this behavior on error rates in the private needs analysis systems.

Given that BSFA will be implementing a unified financial aid form, the assistance center(s) should probably encompass all Title IV programs. The assistance program access numbers should be published in the Basic Grant application and in other multiple data entry applications.[2/] Further, special numbers should be reserved for high school counselors and FAOs.

> R2: BSFA should consider developing a "Reference Manual for the Basic Grant Application" for guidance counselors and financial aid officers which would be oriented specifically toward providing a thorough discussion of each application element and the important considerations in completing it.

Materials made available to student financial aid officers and high school counselors generally focus upon administrative aspects of the program, except for the "Determination of the Eligibility Index" pamphlet which discusses the EI computation. There are no materials specifically geared to providing these individuals with a reference for advising students on completing the application.

> R3: BSFA should consider experimenting with models of proactive assistance, i.e., techniques which seek out potential BEOG applicants and structure the completion of their applications.

By "proactive assistance" we mean assistance activities which are triggered by mechanisms other than the applicant's request for assistance. Proactive assistance might take the form of a structured process for completing the financial aid application or it might simply be an audiovisual

---

[2/] BSFA currently operates telephone assistance centers through a student information contractor and through the application processor. Nonetheless, they are not intended to provide specific assistance to applicants before they have "entered" the system, i.e., at the time of initial application.

presentation or a lecture by the financial aid officer. Another type of proactive assistance might take the form of a commercial fee-for-service operation analogous to tax preparation services which would prepare the financial aid application. The same end might be accomplished by providing schools with an allowance for providing a similar service.

(2) Application Process

In addition to further emphasizing assistance activities, greater guidance and structuring of the process for completing the application should be considered.

> R4: BSFA should consider revising the application instructions so that increased emphasis is placed upon assembling relevant records, using the material, and retaining the entire package. Worksheets should be developed to assist the applicants in computing certain aggregate quantities, such as nontaxable income or investments and real estate values.

Such revisions would probably not be extensive and would have the benefits of subtly emphasizing that accurate data is important, of systematically organizing the computation of the aggregate numbers, and of promoting the retention of records for validation purposes.

(3) The Basic Grant Application

Any discussion of the Basic Grant application is inexorably linked to questions of equity, for the fact is that any changes in the Family Contribution Schedule (the formula which determines the Eligibility Index) will result in EI changes and in changes in award dollars. That is, any change will hurt some people and benefit others. Congress has reserved to itself the perogative of setting this schedule and we have no special claims to greater insight into the matter. Accordingly, in considering the application we will attempt to identify changes in the application which have slight impacts upon the relative shares of program funds.

Simplifying The Application

The first thought in modifying the Basic Grant application is generally to eliminate certain items. To this end, an analysis was conducted which examined the impact upon EIs of eliminating various data elements (see Appendix D). Several elements were found to have low average impacts upon EIs although only two elements were found to have low average impacts for the applicants to which they applied (i.e., for those applicants who reported nonzero values for these elements). Nevertheless, every element was found to have a significant impact for some student.

> R5: Casualty/theft loss adjustments and medical expense adjustments were found to have low average impacts, even for those persons who claimed them. Consideration should be given to eliminating these items from the basic application, possibly considering such matters in the campus-based SEOG program or as a basis for a supplemental application for BEOG.3/4/

In addition to elements with little impact, certain elements collected on the 1978-79 application were not part of the EI computation, being collected in order to establish edit (consistency) criteria or for statistical reporting. These items included the "total number of exemptions claimed on the 1977 U.S. Income Tax return;" "Social Security benefits per month" and "number of months (Social Security benefits are) to be received" under the special educational benefits section of the application; "1977 total itemized deductions;" and the parent's name, age, and Social Security number. The latter two quantitites were not entered onto the computer. Thus, a

---

3/ The analysis performed could be duplicated upon a much larger sample drawn from the Application Processor's files.

4/ BSFA has already endorsed changes in this area, however, legislative action is required to fully implement them.

total of nine data elements were collected which had no direct bearing upon the EI computation.[5/]

> R6: BSFA should reexamine the utility of collecting information which is not processed, which is used only for statistical-reporting purposes, or which is used only for editing purposes.

Data elements are also collected which are not objectively known. These include the three elements on whether the applicant will be claimed as a dependent in the coming year, whether the applicant will receive $600 in support, and whether the applicants will live with the parent for more than two consecutive weeks at any time during the coming year. These items are inherently undocumentable, so the responses reported must be accepted. Further, the projected year answer's would only effectively determine the filing status, when the projected relationship differs from that actually experienced both in the current year and in the past year.

> R7: Questions dealing with the relationship between parent and applicant should not deal with future years.[6/]

Besides the elements used in establishing dependency status, projections are also required for the number of months a student expects to receive Veterans' educational benefits. Our analysis indicated that errors in projecting the number of months of benefits were more significant than errors in the benefit levels reported.

5/ Two of the elements appear on the form twice.

6/ The proposed 1980-81 application implements this recommendation.

R8: The instructions concerning the number of months of Veterans' Educational Benefits should indicate the parameters under which students receive these benefits, so that more accurate projections can be made.

Time Frames

In constructing the Basic Grant application a great deal of attention had to be paid to the time frames for which data were required. In the 1978-79 application, data were required based on 1977 totals, for the July 1-June 30 period, as of the time the application was completed, and, as mentioned prevously, for future calendar years. There was also reference to the "1978-79 academic year" without a further definition of that term. Because a high proportion of applicants do not read the instructions at all, or read them "only as necessary" it is unlikely that subtle shifts in time frames will be observed unless they are specifically indicated on the application.

R9: Shifts in time frames must be indicated on the application. In particular, the elements with the total size of household should have the time period indicated, and the elements referring to the 1978-79 "academic year" should indicate dates instead.7/

The appropriateness of the time frames used on the application is beyond the scope of our review.

Assets/Debts

This area represents the single most difficult part of the application. On one hand, all market values are inherently estimated quantities and such

7/ The recommendation is implemented in the proposed 1980-81 application.

documentation as there is, is not conclusive. On the other hand, when confronted with a verification interview using equally inconclusive information, respondents changed their estimates considerably (both raising and lowering them) such that the mean change was significantly in the direction of increasing the original equity amounts.

As mentioned previously, we believe that the reported values should be developed from supporting worksheets (especially for farmers and businessmen and investors) and that the worksheets should be retained. Consideration should be given to allowing the applicant to provide data based on a most recent financial statement and to utilizing other methods of asset evaluation. Another possibility would be to raise the asset reserve or eliminate home equity altogether as a factor in the EI computation, effectively eliminating error by defining it away.

Nontaxable Income

Nontaxable income is one of the most significant sources of error on the SER. We have several recommendations regarding it:

> R10: BSFA should consider dividing the reporting of nontaxable income by each major source of transfer payments (e.g., Social Security, Veterans Administration, AFDC, etc.) or other sources (e.g., nontaxable income from investments).

Such a division will permit program-oriented edit checks[8/] by the application processor. It would also support eventual data-match activities with other agencies. But, it would also complicate the application.[9/]

8/ E.g., editing VA benefits by the minimum and maximum the applicant is entitled to based on VA program regulations.

9/ BSFA proposes to split Social Security benefits from the rest of nontaxable income in 1980-81.

R11: BSFA should consider changing the nontaxable income reporting method from the total received in the previous calendar year, to the amount currently received on a monthly basis.

This method of reporting would have the advantage of great simplicity, as most applicants would simply record the values from their monthly benefit checks. Since most transfer payment programs do not furnish annual statements of benefits received, the current requirement means that the respondent must total the previous year's checks or, more likely, make an estimate based upon the recalled value of monthly benefit. Some problems with the recommendation are that the benefit levels might change during the year, that eligibility status might change, and that it may adversely affect data-match activities.

R12: The fact that Social Security educational benefits received by the applicant and all other family members in postsecondary education are to be reported should be more clearly stated in the application instructions.

Income Tax Figures

Although income tax figures are conceptually some of the simplest items to provide on the application, adjusted gross income was estimated to be one of the most important sources of student error.

R13: Data should be collected indicating whether the reported values were copied from the appropriate income tax return or estimated.10/

10/ Proposed in the 1980-81 application.

Such information would be useful in targeting data verification activities. It would also provide the opportunity of developing a "preliminary eligibility index" for use by schools in constructing award packages, but then, as part of the corrections process, the students would be required to provide final data when it became available.

Household Size

R14: BSFA should consider using the number of exemptions claimed in the previous tax year as the basis for household size determinations.

The current policy essentially uses the IRS definition, except that it applies it over the July 1-June 30 period of the upcoming year. Given that this element is an important source of error, it would seem that the merits of making the element documentable through the 1040 would outweigh the problems associated with possible changes in family size.[11/]

Number In Postsecondary Education

R15: The presentation of the "number in postsecondary education" data element should clearly indicate that the student is to be included.

The instructions clearly state that the applicant is to be included, however, many people do not read them and this distinction must be indicated in the body of the application.

11/ If this change were adopted then the earlier recommendation to discard collecting the number of exemptions should be ignored.

2. INSTITUTIONAL SECTOR ACTIONS

The discussion in this section will focus upon two distinct issues, namely, recommendations dealing with modification to program policy and recommendations designed to reduce the level of error by institutions in carrying out those policies.

(1) Policy Issues

Affidavits Of Educational Purpose (AEP)

AEP errors were the single largest source of error found by the study. Nevertheless, these errors seem to be in large measure technical and changes in the way the AEP's are administered could significantly reduce them.

The more fundamental question is whether the AEPs have a substantive impact upon the Basic Grant and other Title IV programs, or whether, as expressed by several institutions in the study, they are somewhat tedious administrative exercises. Because this policy issue was not addressed in the study, it can only be identified as an issue for study:

> R16: BSFA should reexamine the utility of the Affidavit of Educational Purpose and consider dropping or replacing it.

AEP errors could be reduced significantly if it were not necessary to notarize the student's signature. (Over one-fifth of AEP errors were attributable to notarization problems.) The value of notarization is somewhat questionable in general, and sometimes abused in practice, e.g., at least a few schools bring in a notary to process AEPs all at one time (without students present).

If it is found that a statement by the student is desirable, then BSFA should consider centralizing the administration of these statements. This should become especially easy in the 1980-81 school year because a single financial aid application for BEOG and the campus-based programs has been developed.

R17: If a statement like the AEP is retained, then BSFA should drop the notarization requirement and consider ways of centralizing administration of the statement.

Satisfactory Academic Progress

R18: The articulation of satisfactory academic progress (SAP) policies must be improved. These policies should indicate basic quality standards (e.g., grade point averages), basic quantity standards (if any) (e.g., complete nine of every 12 credits attempted), the method of determining status (e.g., by committee, by registrar), probation policy and whether a student on probation is considered to be making satisfactory progress, and the effect of SAP determinations upon student assistance.

While a high proportion of schools have published policies, they fall far short of providing an accurate basis to assess the criteria by which students were considered to be making progress. In our review, we found that 22 percent of institutional errors were for students whose quality point averages were below the required levels of SAP.

R19: BSFA should develop minimum standards for determining SAP.

Certain practices have been detected such as the exclusion of D's or F's from determinations of grade point averages and the use of special letter grades (in lieu of F's) to signify situations when a student drops

a course late in the term (the grades are not included in the grade point average computation). BSFA standards should at least extend to eliminating such practices.

A second level of regulation would be the mandating of levels of performance and quantities of progress. Evidence indicates that these standards vary widely, and that a single standard would be difficult to develop.

Refunds And Repayments

The recommendations in this area are developed based upon our experience in attempting to get detailed information on the administration of refund and repayments. They deal primarily with certain difficulties encountered, policies which tend to circumvent the problem, and our belief that the whole area should be examined in itself.

R20: BSFA should launch a special quality control analysis of the administration of refund and repayment policies.

The current study dealt with students early in the award period and thus could not construct a representative profile of the implementation of these policies; less than 0.5 percent of the sample experienced an overpayment or refund. (An end-of-year adjunct to the current study is being conducted, however, the number of refunds and repayments is likely to remain low).

R21: BSFA should require the publication of refund and repayment policies.

Refund policies are required by the student consumer information regulations, although they commonly neglect to state important details such

as whether or not living expenses are subject to the policy. Repayment policy computations are not required and almost never stated.

R22: Refund and repayment computations should be recorded on a common form and retained for review by OE.

Refunds and repayments are often computed by the business office and generally appear as single numerical entries on the student's account. A possibility would be to incorporate it into the proposed financial aid transcript.

R23: Policies which minimize the incidence of the need for repayment and refund computations should be encouraged.

Many schools have adopted a policy of disbursing BEOG funds only after the end of the refund period and BEOG students who drop out are given what amounts to a 100 percent refund to the BEOG account. Late disbursal also has the advantage of having available the student's exact cost of education for the term. It should be noted, that some schools require all payments on the date of enrollment, and, in the case of cash disbursements that students experience substantial costs at the commencement of the term.

Cost Of Education

R24: BSFA should consider ways of simplifying cost-of-education computations, such as using average costs instead of actual costs.

Our review found that significant errors were made in determining COEs, yet the impact upon expected disbursement errors was virtually nil. In addition, the use of actual costs caused students to choose living quarters and meal plans based on their effect upon the Basic Grant. For example, a student might choose a five-day meal plan over a seven-day plan, because the five-day plan's costs, when adjusted to a seven-day basis, were more advantageous.

(2) Other Institutional Errors

Most institutional errors cannot be readily identified with particular causes, as the process culminating in an award determination is almost never recorded in sufficient detail for that purpose.

Two different methods of dealing with these errors could be considered: A central office review strategy might be based upon an award document in which the FAO would record salient points of the award computation and eligibility status of the student in detail sufficient for BSFA to verify the computation. Carried to its logical conclusion, payments, refunds, and repayment computations might all be reviewed. For the central office review strategy to be effective, it is necessary that the documents completed by the institutions be simple and machine-readable, that they be completed accurately, and that the BSFA review take but a few days. Of course, such an approach would increase institutonal burdens in administering the program. An alternative training and technical assistance strategy (essentially the current program strategy) would seek to develop the competence of the FAOs, relying upon periodic audits for the review function.

The current PIMS system has some of the elements of a central office review strategy, although it collects insufficient data elements for the purpose of verifying institutional computations. Because PIMS seems to suffer from both questions of data reliability and timeliness, it would appear imprudent at the present time to recommend further steps in the direction

of a central office review strategy. Accordingly, we will focus upon the training and technical assistance alternative.

BSFA provides a wide variety of services to the institutions, which include a significant level of training activity, a comprehensive set of materials for administering the programs, advice and consultation through the regional and national offices and through contractors, and review and technical assistance through the program review function. These activities have been well received by the institutions, although there definitely are improvements that the institutions feel are necessary.

Technical Assistance And Training

Technical assistance to institutions is currently delivered in several ways: FAOs can attend training sessions, taking the opportunity to ask questions, or they can make inquiries of the regional or national OE offices. In addition, BSFA's program review program endeavors to provide assistance during the course of an on-site review.

R25: BSFA should begin a program of technical assistance to schools.

A technical assistance program could provide the type of comprehensive, institution-specific guidance not attainable through a training program. While the recommendation could be implemented through expanding the program review function, it should be recognized that the program reviews are basically enforcement--not assistance--activities.

While technical assistance services can provide a valuable service to the institutions, it cannot replace the training programs. The structured training session offers an intermediate position between the personal attention of a technical assistance project and the totally general nature of program materials and communiques. Training sessions can cover a high

percentage of the universe of FAOs in a given year, thus offering a convenient vehicle for interpreting and reinforcing program changes.

R26: Training activities should be continued and, to the extent possible, targeted to the needs of particular types of schools. Sessions should be structured by topic and level of presentation.

The most frequent criticism of the training was that it was not well targeted to its audiences. Many individuals could not relate training to their schools and other individuals indicated that the level of presentation was too elementary or too advanced. It should be noted that a certain variability in expertise and interest will be present in any group setting, so that a certain degree of mismatch is inevitable; BSFA does in fact attempt to target its training sessions.

In addition to BSFA-sponsored training, a considerable amount of on-the-job training and formal internal training is conducted by the institutions. It can be expected that the nature, quality, and accuracy of these programs vary widely and that program administration might be enhanced if BSFA were to provide assistance through training protocols or programmed texts.

R27: BSFA should consider the development of programmed training materials for use by the institutions in internal training programs.

Finally, another method of promoting program improvement is to assist in the dissemination of exemplary ideas among the financial aid community.

R28: BSFA should seek to identify and disseminate exemplary financial aid administrative systems, components, and practices.

One striking characteristic of financial aid offices is their variability. Expertise ranges from absolutely nothing--in instances where operations are contracted out--to very sophisticated operations employing significant degrees of automation and individuals with expertise in the "nuts and bolts" operations and national financial aid policy. Our discussions with schools tended to indicate a positive reception for new ideas and methods.

Materials

BSFA published a wide variety of materials for use by the institutions. Unfortunately, these materials are apparently not thought of as comprising parts of a comprehensive and integrated reference library for FAOs. Complaints that FAOs did not know what was available, did not receive materials in a timely fashion, and did not know where to find things were not uncommon.

R29: BSFA should develop, publish, and periodically distribute an annotated bibliography of all materials available for financial aid offices.

R30: BSFA should review its distribution policy to ensure that all participating schools are provided with complete sets of materials, that these schools are periodically reminded where and how to receive additional copies, and that the entire set of participating schools is covered.

R31: BSFA should integrate its materials development, production, and distribution cycle with the student processing year. At the legislative level, it should work to ensure that effective dates of new program legislation are consistent with the development and implementation of materials.

Of course, BSFA has no control over legislative schedules and can only alert the Congress to its needs.

R32: Interpretive rulings, manual revisions, and other interim changes should be linked with the current set of manuals.

Linkages may be in the form of replacement and additional pages of the basic manuals, an index of interpretive rulings organized by topic, by including an expanding section in the manual for these rulings, etc.

BSFA currently provides a number of separate documents which are not designed to form an integrated package and which are difficult to use. For example, while the new handbook is a major improvement, rulings which appear in the Q & A series do not link to it and are not indexed. The financial aid administrator thus has a difficult time in determining the current status of any particular topic.

Communications

R33: BSFA should thoroughly review its procedures for handling institutional communications. Specifically, consideration should be given to expanding/emphasizing the role of the OE regional offices and correspondingly, de-emphasizing the role of OE's national office.

Several problems were indicated by the institutional data: a substantial proportion of written communications to the national office are never answered; institutions frequently "shop" for a desired opinion; timeliness is sometimes not good; and the quality of the response varies.

3. OTHER ACTIONS

(1) Editing And Validation

The study did not examine in any way the effectiveness of BSFA editing and validation activities, although our results are applicable to the post-edit population of recipients and can potentially enhance these activities.

R34: BSFA should conduct additional research with the study database to further develop and refine predictive models to identify applications with a high error potential.

Preliminary research into the area was conducted and preliminary results, reported in Appendix F, appeared promising. The models examined, and derivatives thereof, could be used in either editing applications or as criteria for selecting applicants for validation.

R35: Assuming that validation itself is determined to be an effective method of detecting applicant errors, then BSFA should consider validating those items with the largest impact on error: adjusted gross income, nontaxable income, home equity, number in postsecondary education, and household size.12/

Recommendations made earlier concerning the various data elements would tend to make the task of validating these elements somewhat easier, although home equity would remain a problem.

The issue of the level of validation will be discussed in conjunction with other error-detection strategies.

(2) Error-Detection

There are at least two basic strategies which can be pursued in detecting student errors. The validation strategy requires the student to gather documentation and provide it for review to the student financial aid officer, the Office of Education, or some other party. This strategy requires that the student maintain records and is quite labor intensive.

12/ Adjusted gross income, household size, and number in postsecondary education are currently validated.

In addition, the evaluation of a validation strategy would require some sort of information system not normally a part of the application system. A data-match strategy recognizes that applicant data are available independently in other Federal databases, and it seeks to verify the data by matching Basic Grant program records with the information in the other databases. A data-match strategy offers the advantages of comprehensive validation of certain classes of data without imposing additional burdens upon the delivery system. But, data matching has a significant disadvantage: it must be done expeditiously in order to be useful. Thus, not only must the actual matching and follow-up process be extremely efficient, but the development cycles of the other databases must be consistent with the needs of the programs.

In our view, a careful implementation of a data-match strategy, with careful controls on information, would be far superior to increasing emphasis upon validation activities.

R36: BSFA should develop a plan for comprehensive verification of recipient data based on a data-match strategy. BSFA should explore the legal barriers to data-match and, if appropriate, ask the Congress to remove legislative barriers to this program.

BSFA has taken steps to match comprehensively VA education benefits and Social Security benefits. In addition, data-matches with IRS, VA for non-education benefits, and AFDC should all be pursued.

Even without legislative action, BSFA can take further steps towards implementing data-match strategies within its own programs. In particular, program eligibility criteria include requirements that the student not have defaulted on an NDSL or GSL loan and that he not owe monies on previous grants.

R37: In the near term, BSFA should examine the various databases under its control for Basic Grant data-match purposes.

The need for special data-match activities arises because BSFA data systems are program-oriented (for Basic Grants, program year-oriented), so that information on a particular student may reside in many databases. This fragmentation makes it difficult to utilize available information effectively and tends to channel thinking along program-oriented lines rather than student-oriented lines. The logic which created a functionally oriented Bureau of Student Financial Assistance from separate program-oriented bureaus is equally applicable to BSFA's data systems. On a long-range basis, a consolidated database should be considered.

R38: In the longer term, BSFA should consider developing a comprehensive student-based system, spanning all programs.

Some of the advantages of a student-based system are:

- It would provide data on the ways in which Federal aid is packaged
- It would tend to promote uniformity in support systems input and turnaround documents, access method, etc.
- It would orient BSFA to the student rather than the program
- It would permit interprogram analysis and checking
- External data-matching activities would benefit all programs equally (separate interface would not be required)
- It would provide an important research database

The principal disadvantage would seem to lie in the complexity of the system and the difficulties in shifting to it.

(3) Quality Control

R39: An ongoing quality control system should be instituted for most subsystems of the Basic Grant program.

Quality control efforts presently consist of contracted evaluations such as this study and the IRS-Basic Grant Comparisons study, internal efforts by contractors such as the internal quality checking of SERs by the application processor, and efforts by Division of Quality Assurance staff such as monitoring certain program statistics and conducting checks of the quality of reponses provided by the application processor and the student information service.

Error rates are an ongoing concern and provision should be made for measuring them on a routine and consistent basis over time. Certain benefits would derive from this: design, clearance, and data collection costs would be significantly reduced; consistent quality measures could be developed which would permit examination of impacts of programs changes upon error rates; and information would become available more quickly. The system should provide for independent review of all contracted functions (i.e., PIMS data entry and maintenance, student information service, and application processing) as well as for routine error analysis of students, parents, and institutions. Additionally, independent review of major BSFA services should be considered: candidate services include communications, training, materials development and dissemination, and program reviews.

R40: BSFA should review any available information concerning error rates associated with application processing and multiple data entry.

One out of four respondents in the survey claimed that the information contained on the SER differed from that reported on the application. The study did not review the accuracy of processing so that these responses cannot be evaluated properly; there is a very strong possibility that the respondents are grossly overestimating processing error rates. Nonetheless, BSFA has not provided alternative information on the subject.

APPENDIX A

STUDENT/PARENT DATA TABLES

STUDENT/PARENT DATA TABLES

Tables A-1 through A-8 present distributions of responses to items in the student/parent interviews regarding the general application process. These data describe the attitudes and experiences of applicants and their parents. The questions and responses are as presented in the questionnaire. The reference number preceding each question (which does not conform to table number) refers to the questionnaire item identifier).

Table A-1	Type of Participation in Application Process
Table A-2	Type of Form Used
Table A-3	Assistance Needed
Table A-4	How Form Was Obtained
Table A-5	People Who Assisted
Table A-6	Reliance on Parent (Applicant) by Applicant (Parent)
Table A-7	Validation
Table A-8	Loans

Tables A-9 through A-31 present cross-tabulations and frequency distributions of the discrepancies between SER elements and verified SER elements. All tables are weighted to the universe; the nonzero response column percentages are based on the estimated number of persons who would have reported nonzero values either on the SER or in a verification interview.

Table A-9	Current Marital Status
Table A-10	Total Size of Household
Table A-11	Number of Household Enrolled in Postsecondary Education
Table A-12	1977 Nontaxable Income
Table A-13	1977 Adjusted Gross Income
Table A-14	1977 U.S. Income Tax Paid
Table A-15	Medical-Dental Expenses
Table A-16	Casualty-Theft Loss
Table A-17	Unreimbursed Elementary and High School Tuition
Table A-18	Home--Present Market Value
Table A-19	Home--Unpaid Mortgage Principal or Debts
Table A-20	Investments and Real Estate--Present Market Value
Table A-21	Investments and Real Estate--Unpaid Mortgage or Debts
Table A-22	Cash Savings and Other Resources
Table A-23	Business--Present Market Value
Table A-24	Business--Unpaid Mortgage Principal or Debts
Table A-25	Farm--Present Market Value
Table A-26	Farm--Unpaid Mortgage Principal or Debts
Table A-27	Dependent Student's Other Resources
Table A-28	Social Security Educational Benefits Per Year (1978)
Table A-29	Veteran's Educational Benefits Per Year
Table A-30	1977 Total Itemized Deductions
Table A-31	Total Number of Exemptions Claimed on 1977 U.S. Income Tax Return

TABLE A-1

A-1 In which of the following ways did you participate in the process of applying for financial aid? Did you:

	Independent		Dependent	
	Parents	Students	Parents	Students
Fill out the application form(s) alone . . .	1.2%	69.1%	11.3%	28.7%
Help fill out an application form	8.8	19.8	41.9	57.2
Call the financial aid officer at the school or someone else for information	0.3	17.9	6.4	14.8
Only provide information for filling out the application	10.9	3.5	28.5	7.1
Not participate in applying for financial aid	79.4	0.1	12.9	2.4

These percentages do not add to 100% due to multiple responses.

TABLE A-2

A-2 Which of the application forms did you use in applying for your Basic Educational Opportunity Grant? Was it the:

	Independent		Dependent	
	Parents	Students	Parents	Students
Application for Determination of Basic Grant Eligibility (BEOG)	40.0%	53.0%	36.5%	36.3%
Financial Aid Form (FAF) (College Scholarship Service)	58.9	41.6	54.7	51.5
Family Financial Statement (FFS) (American College Testing Program) . . .	15.6	20.2	21.9	24.1
Application provided by school	4.4	4.0	4.4	4.5
Application for State Higher Education Grant (Pennsylvania Higher Education Assistance Agency-PHEAA)	3.4	3.0	6.5	6.0
Any other form	5.8	6.2	5.4	7.2

These percentages do not add to 100% due to multiple responses.

TABLE A-3

A-4 Did you have to ask for assistance in filling out your _____ application?

	BEOG		FAF		FFS	
	Parents	Students	Parents	Students	Parents	Students
Yes	40.6%	52.9%	35.4%	53.0%	32.3%	52.8%
No	59.4	47.1	64.6	47.0	67.7	47.2
	100%	100%	100%	100%	100%	100%

TABLE A-4

A-3 How was the _____ application obtained? Was it:
(NAME OF FORM)

	BEOG		FAF		FFS	
	Parents	Students	Parents	Students	Parents	Students
Sent by the school you are (your son/daughter is) attending	17.6%	12.5%	18.0%	13.3%	8.9%	7.6%
Picked up from Financial Aid Office at the school you (he/she is) are attending . .	54.7	60.5	50.5	62.0	51.7	58.6
Received from office other than Financial Aid Office at the school you are (your son/daughter is) attending . . .	5.2	7.8	9.5	8.0	5.0	7.1
Received from school other than one you are (your son/daughter is) attending . . .	9.5	8.1	14.1	11.1	19.4	14.1
Sent by Office of Education (OE)	7.2	3.2	0.8	1.0	5.9	2.1
Obtained from American College Testing (ACT)	1.2	0.8	0.2	0.4	2.3	5.5
From library	0.2	0.9	0.8	0.4	0.0	0.5
Obtained in some other way	4.4	6.8	6.9	4.9	6.9	4.5

These percentages do not add to 100% due to multiple responses.

TABLE A-5

A-5 Did any of the people listed on the card or anyone else help you fill out the _____ application or did anyone fill out the application for you? Was it:
(NAME OF FORM)

	BEOG		FAF		FFS	
	Parents	Students	Parents	Students	Parents	Students
Office of Education (OE) . .	3.4%	0.9%	1.7%	0.8%	1.7%	0.0%
American College Testing (ACT) Center in Iowa	2.2	0.2	0.0	0.3	4.0	0.4
Financial Aid Officer at school	17.6	29.2	15.6	25.5	14.3	15.6
Other person(s) employed by the Financial Aid Office .	2.2	4.7	1.2	5.6	3.8	3.4
Son/daughter applying for aid	46.7	1.2	50.2	0.9	47.7	0.3
School counselor (present school)	3.8	5.3	4.1	3.7	1.3	1.0
High school counselor	9.6	5.9	16.0	10.8	24.3	9.5
Other faculty member (present school)	0.0	2.9	0.0	1.8	0.0	1.0
Friends or family members other than students applying for aid	21.2	20.6	22.8	23.3	25.0	16.1
Parents	2.9	37.3	0.8	46.6	3.1	44.3
Peer counselor	0.6	0.9	0.0	1.2	0.0	2.9
Other	9.9	8.8	18.0	5.5	9.5	5.5

These percentages do not add to 100% due to multiple responses.

TABLE A-6

A-10 Did you have to get information from your (parent(s)/son/daughter) to answer any of the following types of questions?

	Percent Responding Yes	
	Parents	Students
Citizenship	1.7%	1.7%
Exemption status	4.2	32.6
Income	21.1	53.2
Assets	9.4	44.9
Debts	8.2	42.1
Special education benefits	10.2	11.7
Any other information	8.0	10.5

TABLE A-7

A-15 Was it necessary to supply documents to verify the information you supplied on the Basic Grant application before this visit?

	Parents	Students
YES	15.4%	18.2%
NO	84.6	81.8
	100%	100%

A-15 Who requested that you provide documents to verify the information on the Basic Grant application? Was it the:

	Parents	Students
School	66.1%	67.3%
Office of Education (OE)	23.5	20.6
Other	15.2	14.2

These percentages do not add to 100% due to multiple responses.

TABLE A-8

A-21 In meeting the cost of your (son/daughter's) postsecondary education, approximately how much have you had to finance through loans?

	Parents	Students
Average debt size	$1,490	$1,634
Proportion with loans	10.1%	44.1%

A-22 Do you forsee any difficulty in repaying these loans?

	Parents	Students
YES	20.1%	14.7%
NO	79.9	85.3
	100%	100%

A-23 Are you in default on any of the loan(s)? By default we mean failure to meet the financial repayment obligation of a loan for which some collection agency, institution or representative has contacted you (your son/daughter) requesting payment.*

	Parents	Students
YES	2.1%	3.4%
NO	97.9	96.6
	100%	100%

* Of those with loans

TABLE A-9

CROSS-TABULATION OF SER ELEMENT BY VERIFIED SER ELEMENT

CURRENT MARITAL STATUS*

Verified SER Element	Original Application SER Element						
	Single	Married	Divorced	Separated	Widowed	Assumed Deceased	Assumed Single-Divorced
Single	81.4%	0.2%	3.7%	3.6%	0.0%	0.0%	83.0%
Married	2.6	98.2	3.7	3.6	4.3	0.0	0.0
Divorced	10.3	0.4	83.0	4.8	6.5	100.0	17.0
Separated	3.8	0.8	6.6	86.8	2.2	0.0	0.0
Widowed	1.9	0.4	3.0	1.2	87.0	0.0	0.0
	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Verified SER Element	Original Application	
	Married	Not Married
Married	98.2%	3.2%
Not Married	1.8	96.8
	100.0	100.0

Overall, 91.4% of the applicants correctly reported their marital status exactly; the percentage of agreement rises to 97.5% if one restricts the determination to "married" or "not married."

---

* Element is based on student's status for independent student and parent's status for dependent students.

TABLE A-10*

DISTRIBUTION OF DISCREPANCY BETWEEN SER ELEMENT AND VERIFIED SER ELEMENT

DISCREPANCY = VERIFICATION ELEMENT - SER ELEMENT

TOTAL SIZE OF HOUSEHOLD

	DISCREPANCY	ALL RESPONSES
Potential Overaward	-8	0.1%
	-7	0.0
	-6	0.1
	-5	0.2
	-4	0.5
	-3	1.1
	-2	2.5
	-1	8.2
	0	79.4
Potential Underaward	1	5.7
	2	1.6
	3	0.2
	4	0.2
	5	0.2
	6	0.0
	7	0.1
		100%

WEIGHTED CASES 1,287,095

MEAN = -0.10

---

* Element is based on student information for independent students, and parent information for dependent students.

TABLE A-11*

DISTRIBUTION OF DISCREPANCY BETWEEN SER ELEMENT AND VERIFIED SER ELEMENT

DISCREPANCY = VERIFICATION ELEMENT - SER ELEMENT

NUMBER OF HOUSEHOLD ENROLLED IN POSTSECONDARY EDUCATION

	DISCREPANCY	ALL RESPONSES
Potential Overaward	-5	0.1%
	-3	0.4
	-2	1.0
	-1	9.5
	0	83.9
Potential Underaward	1	4.5
	2	0.4
	3	0.2
	4	0.1
	5	0.1
		100%

WEIGHTED CASES 1,287,095

MEAN = -0.06

* Element is based on student information for independent students, and parent information for dependent students.

TABLE A-12[1/]

DISTRIBUTION OF DISCREPANCY BETWEEN SER ELEMENT AND VERIFIED SER ELEMENT

DISCREPANCY = VERIFICATION ELEMENT - SER ELEMENT

1977 NONTAXABLE INCOME[2/]

	DISCREPANCY	ALL RESPONSES	NONZERO RESPONSES[3/]
Potential Overaward	$1001 OR MORE	14.5%	28.9%
	$500 TO $1000	3.2	6.3
	$251 TO $499	2.1	4.3
	$1 TO $250	3.6	7.2
	$0	50.0	0.2
Potential Underaward	-$1 TO -$250	7.5	14.9
	-$251 TO -$499	3.0	5.9
	-$500 TO -$1000	3.8	7.6
	-$1001 OR LESS	12.4	24.7
		100%	100%
	WEIGHTED CASES	1,287,095	644,834
		MEAN = $136.68	MEAN = $272.84

1/ Element is based on student information for independent students, and parent information for dependent students.

2/ Sources include AFDC, Welfare, Social Security, Veterans Administration, nontaxable interest income, etc.

3/ Nonzero response to either verification or SER element.

TABLE A-13[1/]

DISTRIBUTION OF DISCREPANCY BETWEEN SER ELEMENT AND VERIFIED SER ELEMENT

DISCREPANCY = VERIFICATION ELEMENT - SER ELEMENT

1977 ADJUSTED GROSS INCOME

	DISCREPANCY	ALL RESPONSES	NONZERO RESPONSES[2/]
Potential Overaward	$1001 OR MORE	7.4%	9.5%
	$500 TO $1000	2.6	3.3
	$251 TO $499	1.7	2.2
	$1 TO $250	15.4	19.8
	$0	56.8	44.5
Potential Underaward	-$1 TO -$250	5.1	6.6
	-$251 TO -$499	1.2	1.6
	-$500 TO -$1000	2.1	2.7
	-$1001 OR LESS	7.6	9.8
		100%	100%
	WEIGHTED CASES	1,287,095	1,002,647
		MEAN = $159.88	MEAN = $204.50

1/ Element is based on student information for independent students, and parent information for dependent students.

2/ Nonzero response to either verification or SER element.

TABLE A-14[1/]

DISTRIBUTION OF DISCREPANCY BETWEEN SER ELEMENT AND VERIFIED SER ELEMENT

DISCREPANCY = VERIFICATION ELEMENT - SER ELEMENT

1977 U.S. INCOME TAX PAID

	DISCREPANCY	ALL RESPONSES	NONZERO RESPONSES[2/]
Potential Overaward	-$1001 OR LESS	0.9%	1.7%
	-$500 TO -$1000	1.4	2.6
	-$251 TO -$499	2.5	4.8
	-$1 TO -$250	8.6	16.3
	$0	67.7	38.4
Potential Underaward	$1 TO $250	9.0	17.1
	$251 TO $499	3.3	6.3
	$500 TO $1000	4.3	8.2
	$1001 OR MORE	2.4	4.6
		100%	100%
	WEIGHTED CASES	1,287,095	675,724
		MEAN = $97.31	MEAN = $185.29

1/ Element is based on student information for independent students, and parent information for dependent students.

2/ Nonzero response to either verification or SER element.

TABLE A-15[1/]

DISTRIBUTION OF DISCREPANCY BETWEEN SER ELEMENT AND VERIFIED SER ELEMENT

DISCREPANCY = VERIFICATION ELEMENT - SER ELEMENT

MEDICAL-DENTAL EXPENSES

	DISCREPANCY	ALL RESPONSES	NONZERO RESPONSES[2/]
Potential Overaward	-$1001 OR LESS	1.6%	2.5%
	-$500 TO -$1000	4.5	6.9
	-$251 TO -$499	5.0	7.8
	-$1 TO -$250	14.9	22.9
	$0	47.8	19.8
Potential Underaward	$1 TO $250	16.6	25.5
	$251 TO $499	4.8	7.4
	$500 TO $1000	3.6	5.5
	$1001 OR MORE	1.1	1.7
		100%	100%
	WEIGHTED CASES	1,287,095	837,898
		MEAN = $-6.97	MEAN = $-10.70

1/ Element is based on student information for independent students, and parent information for dependent students.

2/ Nonzero response to either verification or SER element.

TABLE A-16[1/]

DISTRIBUTION OF DISCREPANCY BETWEEN SER ELEMENT AND VERIFIED SER ELEMENT

DISCREPANCY = VERIFICATION ELEMENT - SER ELEMENT

CASUALTY-THEFT LOSS

	DISCREPANCY	ALL RESPONSES	NONZERO RESPONSES[2/]
Potential Overaward	-$1001 OR LESS	0.2%	2.4%
	-$500 TO -$1000	0.3	3.5
	-$251 TO -$499	0.7	8.3
	-$1 TO -$250	1.2	14.4
	$0	94.3	31.2
Potential Underaward	$1 TO $250	1.7	20.4
	$251 TO $499	0.4	4.7
	$500 TO $1000	0.7	8.3
	$1001 OR MORE	0.6	7.1
		100%	100%
	WEIGHTED CASES	1,287,095	106,828
		MEAN = $39.12	MEAN = $473.87

1/ Element is based on student information for independent students, and parent information for dependent students.

2/ Nonzero response to either verification or SER element.

TABLE A-17[1/]

DISTRIBUTION OF DISCREPANCY BETWEEN SER ELEMENT AND VERIFIED SER ELEMENT

DISCREPANCY = VERIFICATION ELEMENT - SER ELEMENT

UNREIMBURSED ELEMENTARY AND HIGH SCHOOL TUITION

	DISCREPANCY	ALL RESPONSES	NONZERO RESPONSES[2/]
Potential Overaward	-$1001 OR LESS	0.6%	3.6%
	-$500 TO -$1000	0.8	4.8
	-$251 TO -$499	0.6	3.6
	-$1 TO -$250	4.8	28.7
	$0	85.4	12.6
Potential Underaward	$1 TO $250	5.5	32.9
	$251 TO $499	0.8	4.8
	$500 TO $1000	1.1	6.6
	$1001 OR MORE	0.4	2.4
		100%	100%
	WEIGHTED CASES	1,287,095	214,944
		MEAN = -$0.04	MEAN = -$0.25

1/ Element is based on student information for independent students, and parent information for dependent students.

2/ Nonzero response to either verification or SER element.

TABLE A-18[1/]

DISTRIBUTION OF DISCREPANCY BETWEEN SER ELEMENT AND VERIFIED SER ELEMENT

DISCREPANCY = VERIFICATION ELEMENT - SER ELEMENT

HOME--PRESENT MARKET VALUE

	DISCREPANCY	ALL RESPONSES	NONZERO RESPONSES[2/]
Potential Overaward	$5001 OR MORE	8.1%	16.0%
	$4001 TO $5000	2.1	4.3
	$3001 TO $4000	1.3	2.6
	$2001 TO $3000	1.4	2.8
	$1001 TO $2000	2.2	4.4
	$1 TO $1000	3.7	7.3
	$0	65.3	31.3
Potential Underaward	-$1 TO -$1000	2.2	4.4
	-$1001 TO -$2000	1.9	3.8
	-$2001 TO -$3000	1.5	2.9
	-$3001 TO -$4000	0.9	1.8
	-$4001 TO -$5000	1.5	2.9
	-$5001 OR LESS	7.8	15.4
		100%	100%
	WEIGHTED CASES	1,287,095	649,982
		MEAN = $126.97	MEAN = $251.18

1/ Element is based on student information for independent students, and parent information for dependent students.

2/ Nonzero response to either verification or SER element.

TABLE A-19[1/]

DISTRIBUTION OF DISCREPANCY BETWEEN SER ELEMENT AND VERIFIED SER ELEMENT

DISCREPANCY = VERIFICATION ELEMENT - SER ELEMENT

HOME--UNPAID MORTGAGE PRINCIPAL OR DEBTS

	DISCREPANCY	ALL RESPONSES	NONZERO RESPONSES[2/]
Potential Overaward	-$5001 OR LESS	2.9%	7.6%
	-$4001 TO -$5000	0.2	0.5
	-$3001 TO -$4000	0.6	1.6
	-$2001 TO -$3000	1.0	2.6
	-$1001 TO -$2000	1.7	4.5
	-$1 TO -$1000	8.9	23.5
	$0	69.7	19.8
Potential Underaward	$1 TO $1000	9.8	25.9
	$1001 TO $2000	1.4	3.7
	$2001 TO $3000	0.6	1.6
	$3001 TO $4000	0.5	1.3
	$4001 TO $5000	0.3	0.8
	$5001 OR MORE	2.5	6.6
		100%	100%
	WEIGHTED CASES	1,287,095	424,741
		MEAN = -$113.84	MEAN = -$301.07

1/ Element is based on student information for independent students, and parent information for dependent students.

2/ Nonzero response to either verification or SER element.

TABLE A-20[1/]

DISTRIBUTION OF DISCREPANCY BETWEEN SER ELEMENT AND VERIFIED SER ELEMENT

DISCREPANCY = VERIFICATION ELEMENT - SER ELEMENT

INVESTMENTS AND REAL ESTATE--PRESENT MARKET VALUE

	DISCREPANCY	ALL RESPONSES	NONZERO RESPONSES[2/]
Potential Overaward	$5001 OR MORE	1.3%	13.4%
	$4001 TO $5000	0.3	3.1
	$3001 TO $4000	0.1	1.0
	$2001 TO $3000	0.3	3.1
	$1001 TO $2000	0.2	2.1
	$1 TO $1000	0.7	7.2
	$0	92.0	17.5
Potential Underaward	-$1 TO -$1000	1.4	14.4
	-$1001 TO -$2000	0.9	9.3
	-$2001 TO -$3000	0.8	8.2
	-$3001 TO -$4000	0.2	2.1
	-$4001 TO -$5000	0.5	5.2
	-$5001 OR LESS	1.4	14.4
		100%	100%
	WEIGHTED CASES	1,287,095	124,848
		MEAN = -$112.21	MEAN = -$115.99

1/ Element is based on student information for independent students, and parent information for dependent students.

2/ Nonzero response to either verification or SER element.

TABLE A-21[1/]

DISTRIBUTION OF DISCREPANCY BETWEEN SER ELEMENT AND VERIFIED SER ELEMENT

DISCREPANCY = VERIFICATION ELEMENT - SER ELEMENT

INVESTMENTS AND REAL ESTATE-- UNPAID MORTGAGE OR DEBTS

	DISCREPANCY	ALL RESPONSES	NONZERO RESPONSES[2/]
Potential Overaward	-$5001 OR LESS	0.4%	10.4%
	-$4001 TO -$5000	0.1	2.5
	-$3001 TO -$4000	0.1	2.5
	-$2001 TO -$3000	0.1	2.5
	-$1001 TO -$2000	0.2	5.1
	-$1 TO -$1000	0.3	7.7
	$0	96.8	15.6
Potential Underaward	$1 TO $1000	0.2	5.1
	$1001 TO $2000	0.2	5.1
	$2001 TO $3000	0.2	5.1
	$3001 TO $4000	0.3	7.7
	$4001 TO $5000	0.1	2.5
	$5001 OR MORE	1.1	28.8
		100%	100%
	WEIGHTED CASES	1,287,095	48,909
		MEAN = $71.15	MEAN = $1,873.95

1/ Element is based on student information for independent students, and parent information for dependent students.

2/ Nonzero response to either verification or SER element.

TABLE A-22[1/]

DISTRIBUTION OF DISCREPANCY BETWEEN SER ELEMENT AND VERIFIED SER ELEMENT

DISCREPANCY = VERIFICATION ELEMENT - SER ELEMENT

CASH SAVINGS AND OTHER RESOURCES

	DISCREPANCY	ALL RESPONSES	NONZERO RESPONSES[2/]
Potential Overaward	$5001 OR MORE	1.1	1.6
	$4001 TO $5000	0.4	0.6
	$3001 TO $4000	0.7	1.1
	$2001 TO $3000	1.5	2.3
	$1001 TO $2000	1.7	2.5
	$1 TO $1000	30.0	44.7
	$0	43.2	15.4
Potential Underaward	-$1 TO -$1000	18.1	26.9
	-$1001 TO -$2000	1.4	2.1
	-$2001 TO -$3000	0.6	0.8
	-$3001 TO -$4000	0.4	0.6
	-$4001 TO -$5000	0.2	0.3
	-$5001 OR LESS	0.7	1.1
		100%	100%
	WEIGHTED CASES	1,287,095	864,927
		MEAN = $130.46	MEAN = $194.22

1/ Element is based on student information for independent students, and parent information for dependent students.

2/ Nonzero response to either verification or SER element.

TABLE A-25[1/]

DISTRIBUTION OF DISCREPANCY BETWEEN SER ELEMENT AND VERIFIED SER ELEMENT

DISCREPANCY = VERIFICATION ELEMENT - SER ELEMENT

FARM--PRESENT MARKET VALUE

	DISCREPANCY	ALL RESPONSES	NONZERO RESPONSES[2/]
Potential Overaward	$5001 OR MORE	0.7%	14.5%
	$4001 TO $5000	0.1	1.9
	$3001 TO $4000	0.1	1.9
	$2001 TO $3000	0.0	0.0
	$1001 TO $2000	0.1	1.9
	$1 TO $1000	0.1	1.9
	$0	97.0	35.9
Potential Underaward	-$1 TO -$1000	0.2	4.1
	-$1001 TO -$2000	0.1	1.9
	-$2001 TO -$3000	0.0	0.0
	-$3001 TO -$4000	0.0	0.0
	-$4001 TO -$5000	0.1	1.9
	-$5001 OR LESS	1.6	34.1
		100%	100%
	WEIGHTED CASES	1,287,095	60,493
		MEAN = -$451.68	MEAN = -$9,632.89

1/ Element is based on student information for independent students, and parent information for dependent students.

2/ Nonzero response to either verification or SER element.

TABLE A-26[1/]

DISTRIBUTION OF DISCREPANCY BETWEEN SER ELEMENT AND VERIFIED SER ELEMENT

DISCREPANCY = VERIFICATION ELEMENT - SER ELEMENT

FARM--UNPAID MORTGAGE PRINCIPAL OR DEBTS

	DISCREPANCY	ALL RESPONSES	NONZERO RESPONSES[2/]
Potential Overaward	-$5001 OR LESS	1.1%	29.6%
	-$4001 TO -$5000	0.0	0.0
	-$3001 TO -$4000	0.1	2.6
	-$2001 TO -$3000	0.0	0.0
	-$1001 TO -$2000	0.1	2.6
	-$1 TO -$1000	0.2	5.3
	$0	97.5	31.3
Potential Underaward	$1 TO $1000	0.0	0.0
	$1001 TO $2000	0.1	2.6
	$2001 TO $3000	0.2	5.3
	$3001 TO $4000	0.2	5.3
	$4001 TO $5000	0.1	2.6
	$5001 OR MORE	0.5	13.4
		100%	100%
	WEIGHTED CASES	1,287,095	47,622
		MEAN = -$231.79	MEAN = -$6,299.57

1/ Element is based on student information for independent students, and parent information for dependent students.

2/ Nonzero response to either verification or SER element.

TABLE A-27

DISTRIBUTION OF DISCREPANCY BETWEEN SER ELEMENT AND VERIFIED SER ELEMENT

DISCREPANCY = VERIFICATION ELEMENT - SER ELEMENT

DEPENDENT STUDENT'S OTHER RESOURCES

	DISCREPANCY	ALL RESPONSES	NONZERO RESPONSES[1/]
Potential Overaward	$1001 OR MORE	0.7%	1.0%
	$500 TO $1000	1.9	3.1
	$251 TO $499	4.7	7.7
	$1 TO $250	26.6	44.6
	$0	46.3	9.3
Potential Underaward	-$1 TO -$250	15.6	26.2
	-$251 TO -$499	2.3	3.8
	-$500 TO -$1000	1.3	2.0
	-$1001 OR LESS	0.6	2.5
		100%	100%
	WEIGHTED CASES	894,148	530,229
		MEAN = $22.29	MEAN = $37.63

1/ Nonzero response to either verification or SER element.

TABLE A-28[1/]

DISTRIBUTION OF DISCREPANCY BETWEEN SER ELEMENT AND VERIFIED SER ELEMENT

DISCREPANCY = VERIFICATION ELEMENT - SER ELEMENT

SOCIAL SECURITY EDUCATIONAL BENEFITS PER YEAR (1978)

	DISCREPANCY	ALL RESPONSES	NONZERO RESPONSES[2/]
Potential Overaward	$7001 OR MORE	0.1%	0.6%
	$6001 TO $7000	0.1	0.6
	$5001 TO $6000	0.0	0.0
	$4001 TO $5000	0.1	0.6
	$3001 TO $4000	0.1	1.3
	$2001 TO $3000	0.2	1.3
	$1001 TO $2000	0.9	6.1
	$1 TO $1000	7.4	50.6
	$0	86.3	6.1
Potential Underaward	-$1 TO -$1000	2.7	18.4
	-$1001 TO -$2000	0.8	5.4
	-$2001 TO -$3000	0.3	2.0
	-$3001 TO -$4000	0.2	1.3
	-$4001 TO -$5000	0.0	0.0
	-$5001 TO -$6000	0.0	0.0
	-$6001 TO -$7000	0.1	0.6
	-$7001 OR LESS	0.8	5.4
		100%	100%
	WEIGHTED CASES	1,287,095	187,915
		MEAN = -$94.49	MEAN = -$645.97

1/ Element is based on student's response only.

2/ Nonzero response to either verification or SER element.

TABLE A-29[1/]

DISTRIBUTION OF DISCREPANCY BETWEEN SER ELEMENT AND VERIFIED SER ELEMENT

DISCREPANCY = VERIFICATION ELEMENT - SER ELEMENT

VETERAN'S EDUCATIONAL BENEFITS PER YEAR

	DISCREPANCY	ALL RESPONSES	NONZERO RESPONSES[2/]
Potential Overaward	$7001 OR MORE	0.0%	0.0%
	$6001 TO $7000	0.0	0.0
	$5001 TO $6000	0.2	3.2
	$4001 TO $5000	0.1	1.5
	$3001 TO $4000	0.1	1.5
	$2001 TO $3000	0.2	3.2
	$1001 TO $2000	0.2	3.2
	$1 TO $1000	2.2	37.2
	$0	94.8	11.8
Potential Underaward	-$1 TO -$1000	1.3	22.0
	-$1001 TO -$2000	0.5	8.4
	-$2001 TO -$3000	0.3	5.0
	-$3001 TO -$4000	0.1	1.5
	-$4001 TO -$5000	0.0	0.0
	-$5001 TO -$6000	0.1	1.5
	-$6001 TO -$7000	0.0	0.0
	-$7001 OR LESS	0.0	0.0
		100%	100%
	WEIGHTED CASES	1,287,095	75,938
		MEAN = $11.31	MEAN = $190.73

1/ Element is based on student's response only.

2/ Nonzero response to either verification or SER element.

TABLE A-30[1/]

DISTRIBUTION OF DISCREPANCY BETWEEN SER ELEMENT AND VERIFIED SER ELEMENT

DISCREPANCY = VERIFICATION ELEMENT - SER ELEMENT

1977 TOTAL ITEMIZED DEDUCTIONS

	DISCREPANCY	ALL RESPONSES	NONZERO RESPONSES[2/]
Potential Overaward	-$1001 OR LESS	13.7%	65.6%
	-$500 TO -$1000	0.7	3.3
	-$251 TO -$499	0.6	2.9
	-$1 TO -$250	0.5	2.4
	$0	80.8	8.1
Potential Underaward	$1 TO $250	0.7	3.3
	$251 TO $499	0.5	2.4
	$500 TO $1000	0.8	3.9
	$1001 OR MORE	1.7	8.1
		100%	100%
	WEIGHTED CASES	1,287,095	269,002
		MEAN = -$339.01	MEAN = -$1,619.25

1/ Element is based on student's response only.

2/ Nonzero response to either verification or SER element.

TABLE A-31*

DISTRIBUTION OF DISCREPANCY BETWEEN SER ELEMENT AND VERIFIED SER ELEMENT

DISCREPANCY = VERIFICATION ELEMENT - SER ELEMENT

TOTAL NUMBER OF EXEMPTIONS CLAIMED ON 1977 U.S. INCOME TAX RETURN

	DISCREPANCY	ALL RESPONSES
Potential Overaward	-15	0.1%
	-13	0.1
	-11	0.1
	-9	0.4
	-8	0.5
	-7	1.4
	-6	1.9
	-5	2.7
	-4	3.7
	-3	6.1
	-2	5.5
	-1	8.6
	0	62.9
Potential Underaward	1	4.3
	2	1.5
	3	0.2
	4	0.1
	5	0.1
		100%
	WEIGHTED CASES	1,287,095

* Element is based on student information for independent students, and parent information for dependent students.

APPENDIX B

PROCEDURE USED FOR COMPUTING AWARD ERRORS

PROCEDURE USED FOR COMPUTING AWARD ERRORS

In this Appendix we outline our approach to estimating errors.

1. TOTAL ERROR

For each student in the sample a total dollar error in expected disbursement was computed. This amount was the difference between two quantities:

- The verification expected disbursement (VED) which is the amount which should have been awarded based on:
  - The verification eligibility index (VEI), i.e., the EI computed solely from verification interview data
  - The verified procedures, i.e., the correct cost of education, enrollment status, and other award proration, as determined by our interviewers in the student record abstracts
- The actual expected disbursement (AED) as computed by the institution using the SER provided by the student

Thus Total Error is the difference between the amount which would be expected to be awarded using the correct EI and correct institutional procedures, and the amount that was actually expected to be awarded as determined by the institutions using the SER supplied by the student.

2. INSTITUTIONAL ERROR

Total Error can be attributed to institutional errors and to student errors. For Institutional Error we computed the difference between:

- The institution's true expected disbursement (ITED) using correct, verified institutional procedures (determined in the verification interview), but the same SER that the institution actually used
- The actual expected disbursement (AED), described above

Institutional Error is computed holding the EI constant. Thus, the only source of difference arises from institutional errors of various types.

3. STUDENT ERROR

Student error is computed as the difference between the two quantities:

- VED, i.e., the expected disbursement based upon correct, verified institutional procedures and the correct, verified EI
- ITED, i.e., the expected disbursement based upon correct, verified institutional procedures, but the actual EI upon which the student was paid

Student Error is computed holding the institution determinations as made by the interviewer constant. Thus, the only source of error is attributable to errors in the EI.

4. COMPUTATIONAL SUMMARY

TOTAL ERROR = VED - AED
STUDENT ERROR = VED - ITED
INSTITUTIONAL ERROR = ITED - AED

Thus, STUDENT ERROR + INSTITUTIONAL ERROR = (VED - ITED) + (ITED - AED)
= VED - AED
= TOTAL ERROR

5. METHODOLOGICAL POINTS

- Errors could not be estimated when the verification filing status disagreed with the actual filing status, because an accurate verification ES could not be computed.
- The algorithm to compute the EIs was tested against 3,700 SER EIs generated by the application processor; it was accurate in all cases.
- All errors found by interviews on the institutional side were discussed with the institution in an exit interview, giving the institution the opportunity to correct any interviewer errors.
- Student errors on SER elements were corroborated in follow-up telephone callbacks.
- Estimates apply to errors in computing expected disbursements for the entire award period. Thus, they do not account for the possibilities that institutions may detect and correct errors during the award period (or make other errors).
- The basic error estimates computed for each student are appropriately weighted in this report, in accordance with our sample design.

APPENDIX C

ESTIMATION OF THE NET ERROR IN EXPECTED DISBURSEMENT FOR STUDENTS WHO INCORRECTLY FILED AS INDEPENDENT STUDENTS

ESTIMATION OF THE NET ERROR IN EXPECTED DISBURSEMENT FOR STUDENTS WHO INCORRECTLY FILED AS INDEPENDENT STUDENTS

To arrive at an estimate of the overawards due to those cases who incorrectly filed as independent students (representing 5.1 percent of the universe), it is necessary to estimate the value of the verification EI, using existing relationships between mean verification and SER EIs for independent and dependent students for the remainder of the sample who filed correctly. Table C-1 displays the mean values of the factors required to determine the expected disbursement for three subgroups of the population: (1) dependent applicants whose filing status was correct, (2) independent applicants whose filing status was correct, and (3) applicants who incorrectly filed as independent students. For those applicants who incorrectly filed as independent students, it is possible to estimate the verification EI (as if they filed as dependents) from the SER EI by assuming that the SER EI should be stepped up by two factors, (1) the ratio of the mean verification EI to the mean SER EI for independent applicants ($\frac{373}{305} = 1.223$), and (2) the ratio of the verification EI for dependent applicants to the verification EI for independent applicants ($\frac{519}{373} = 1.391$). Factor 1 corrects for the bias due to completing individual elements on the application, whereas, factor 2 corrects for the bias due to filing as independent rather than dependent. Estimating the verification EI in the above manner for each student, and computing the student error for this subgroup using the normal method, we obtain a net overpayment averaging $106 per student, and totalling approximately $7 million for an estimated 70,800 applicants.

The $7 million figure is based upon a number of assumptions which are, to say the least, questionable. Nonetheless, it is offered as a more reasonable estimate of error than simply assuming the total amount of awards to independent students is in error.

TABLE C-1

A Comparison of the Average Verification Factors Used in the Computation of the Expected Disbursement for Three Subgroups of the BEOG Universe

	VERIFICATION FILING STATUS AGREES WITH SER FILING STATUS		APPLICANTS INCORRECTLY FILED AS INDEPENDENT
	Dependent Applicants	Independent Applicants	
Percent of BEOG Universe 1,369,000	(65%) 889,363	(29%) 392,932	(5%) 70,852
Mean Verification EI	519 points	373 points	Not Available
Mean SER EI	472 points	305 points	245 points
Mean Verification Total Cost of Education	$2,867 ($2,512)*	$2,539 ($2,354)*	$2,701 ($2,426)*
Mean Verification Proration Factors for Determining Award	0.975	0.941	0.978
Distribution of Verification Enrollment Status at Time of Award			
Full-time Student	95%	87%	89.3%
3/4-time Student	2%	4.9%	5.6%
1/2-time Student	1.2%	5.7%	2.9%
1/4-time Student	1.8%	2.7%	2.2%
Mean Verification Expected Disbursement	$877	$837	Not Available

* Mean when Costs > $3,200 set equal to $3,200.

APPENDIX D

ANALYSIS OF THE IMPACT OF SPECIFIC SER ELEMENTS ON THE ELIGIBILITY INDEX COMPUTATION

ANALYSIS OF THE IMPACT OF SPECIFIC SER ELEMENTS ON THE ELIGIBILITY INDEX COMPUTATION

The methodology of estimating the dollar impact of SER-element errors (used in Chapter II) can be modified to determine the effect upon EIs of excluding specific SER-elements from the EI computation. Such analysis should assist in evaluating potential modifications to the Family Contribution Schedule. For example, we might want to know how EIs are impacted, on the average, if home equity is not included as a net asset. This analysis would be useful in formulating recommendations for altering the formula used for the EI in future years: if a specific element was found to be in error in a large percentage of the cases, yet its impact on the overall EI computation was negligible, OE might want to consider dropping the element from the computation. On the other hand, if the element had large errors and a large impact on the EI, more emphasis might be placed on documentation or other error-reducing methods.

1. METHODOLOGY

The impacts of deleting the following SER elements from the EI computation were investigated:

- Taxes Paid
- Medical-Dental Expenses
- Casualty-Theft Loss
- Unreimbursed Tuition
- Home Equity (Present Market Value of Home - Home Debt)
- Investment Equity (Present Market Value of Investments - Investment Debt)
- Cash Savings
- Business Equity (Present Market Value of Business - Business Debt)
- Farm Equity (Present Market Value of Farm - Farm Debt)
- Student's Other Resources
- Veteran's Educational Benefits (Amount/Month X No. of Months)

The following steps were taken for each element:

- Step 1--The value of the element was set to zero.
- Step 2--The EI was computed (EI_{zero}), utilizing the zero value.
- Step 3--The difference between the new EI and the original SER EI was computed.

$$\text{EI DIFFERENCE} = EI_{zero} - EI_{SER}$$

- Step 4--The distribution of the EI DIFFERENCE for the sample was analyzed. Two distributions were formed for each element, one for cases which reported nonzero values for the element on the SER file and one for all cases, whether or not they reported nonzero values.

2. RESULTS

The mean and standard deviation of the EI DIFFERENCES are reported in Table D-1, following this page, for each SER element.

3. DISCUSSION

Of those elements with positive effects on the EI DIFFERENCE (i.e., EI is greater when element is zeroed out), taxes paid had the highest impact (mean for all cases = 50.07), followed by unreimbursed tuition (mean for all cases = 6.49).

Of those elements with negative effects on the EI DIFFERENCE (i.e., EI is less when element is zeroed out), home equity had the highest impact (mean for all cases = -47.90), followed by student's other resources (mean for all cases = -23,87), and cash savings (mean for all cases = -16.09). When looking at cases reporting home equity (42 percent of the sample), the impact more than doubled on the average (mean = -113.95). Similar effects are noted for student's other resources and cash savings.

The data indicate that medical-dental expenses and casualty-theft loss elements have a negligible average affect on EI levels, even for just the subset of people who report nonzero values. Thus, these elements should be considered for deletion in any revision to the Family Contribution Schedule. Such revision should be tempered with a mechanism for assisting those few families that might be adversely affected.

TABLE D-1 [1]

DISTRIBUTION OF EI DIFFERENCES WHERE
EI DIFFERENCE = $EI_{zero} - EI_{SER}$

SER ELEMENT	ALL CASES MEAN	ALL CASES STAND. DEV.	PERCENT TOTAL CASES [2]	CASES REPORTING NONZERO VALUES MEAN	CASES REPORTING NONZERO VALUES STAND. DEV.
Elements with Positive Effects on Difference					
Tax Paid	50.07 pts.	93.75	40.67%	123.19 pts.	112.27
Medical-Dental Expenses	1.75	18.76	47.79	3.72	27.01
Casualty-Theft Loss	0.24	5.59	5.25	5.84	23.77
Unreimbursed Tuition	6.49	40.36	9.38	69.82	114.02
Elements with Negative Effects on Difference					
Home Equity	-47.90	162.37	42.01	-113.95	235.07
Investment Equity	-5.39	54.26	6.47	-82.39	198.59
Cash Savings	-16.09	71.16	47.70	-33.69	100.14
Business Equity	-0.84	19.25	4.04	-19.11	94.44
Farm Equity	-1.75	40.56	2.91	-57.78	232.63
Student's Other Resources	-23.87	73.40	24.57	-97.09	121.83
Veteran's Educational Benefits	-12.39	95.75	4.73	-260.50	360.95

[1] Based on the unweighted sample data of SERs upon which student awards were computed by institutions. Four cases which involved EIs were deleted from the analysis.

[2] Nonzero values reported on SER.

APPENDIX E

DOCUMENTATION OF APPLICATION ITEMS

DOCUMENTATION

The principal types of documentation collected during the verification interviews are described in this section. Tables are included for each item for which documentation was sought and are footnoted to indicate for which subpopulation the documentation was sought and other conditions under which it was sought.

Up to four distributions may be reported for each item. The first two columns report on documentation actually produced by the respondent during the verification interview, while the last two columns refer to the respondent's report as to the type of documentation he or she used when applying. For each type of documentation, the data are reported by student and parent separately. All items are weighted and the total number of cases is reported below each distribution. The item number associated with each question provides a reference to the appropriate element in the questionnaire used for the interview.

In assessing the documentation, there are a number of important factors which should be considered:

- The study did not pursue information-gathering activities on the sample outside of the interview setting. Therefore, the possibility that the respondents denied income or assets is present. Because it is not generally feasible to collect documentation proving the non-existence of income or assets, documentation was not sought in some situations. Thus, respondents had available a significant opportunity to understate their financial situation. (The interviewer did not indicate, however, that the interview was the only source of information on the respondent.)

- Certain items cannot be documented, such as all items relating to future intentions. No documentation was sought in these instances, although respondents were asked to state their intentions.

- Certain items can only be documented in a circumstantial manner. For example, home value can be approached through home insurance policy values, tax assessments, original purchase price, etc., although each of these sources has problems. Our approach on such items was to obtain first the respondent's estimate and then to examine the documentation. Interviewers were trained to probe to ascertain the probable consistency of the respondent's estimate and the documented value. Ultimately, the respondent's (revised) estimate was accepted.

- The respondent was not confronted with his original application and the interviewer was not aware of the contents of that application. Subsequent to the interview a telephone follow-up was made based on discrepancies between interview data and the application data to ensure that no errors had occurred in the interview.

For more detailed information on the procedures followed by the interviewers, refer to Volume II of this report.

SUMMARY OF "NO DOCUMENTATION" PERCENTAGES AND INDEX TO DETAILED TABLES[1/]

Item Identifier	Verification Subject	No Documentation Parent	No Documentation Student	Page Number
B-1	Claimed as Exemption in 1977 (Parent)	18.9	-	5
B-7	Claimed as Receiving more than $600 in 1977	82.6	-	5
B-8	Claimed as Receiving more than $600 in 1978	84.9	-	6
B-10	U.S. Citizenship	-	30.9	6
B-11	Permanent Resident	-	16.2	7
B-12	Claimed as Exemption in 1977 (Student)	-	70.0	7
B-15	Lived with Parents in 1977	-	49.9	8
B-16	Lived with Parents in 1978	-	41.8	8
B-22	Household Size	33.2	56.9	9
B-23	Number in Postsecondary Education	35.2	25.0	9
B-25	Total Exemptions Claimed in 1977	15.0	39.6	10
B-26	1977 Adjusted Gross Income	12.0	35.8	10
B-27	Applicant/Spouse-Father/Mother Employment Income	10.5	26.4	11
B-28	1977 Income Tax Paid	13.4	37.7	11
B-29	1977 Itemized Deductions	22.1	54.8	12
B-30	1977 Medical/Dental Expenses	58.3	80.9	12
B-31	Casualty/Theft Losses	71.5	89.8	13
B-33	Elementary/Secondary Tuition	47.4	42.8	13
B-35	Market Value of Home	37.7	39.5	14
B-36	Home Debt	37.8	27.5	14

1/ See tables for precise subgroups included in each statistic.

Item Identifier	Verification Subject	No Documentation Parent	No Documentation Student	Page Number
B-37	Don't Own Home	22.1	30.9	15
B-39	Market Value of Investments	63.7	42.7	15
B-40	Investment Debt	73.1	77.5	16
B-42	Business Value	64.1	100.0	16
B-43	Business Debt	68.7	100.0	17
B-45	Farm Value	49.5	100.0	17
B-46	Farm Debt	39.1	100.0	18
B-49	VA Noneducational Benefits	36.9	71.8	18
B-51	SSA Noneducational Benefits	36.7	29.2	19
B-53	Child Support	44.8	67.8	19
B-55	Welfare	35.7	44.1	20
B-57	Other Earned Income	46.5	49.6	20
B-60	Cash, Savings and Checking Accounts	48.2	64.6	21
B-61	VA Educational Benefits - Amount	-	41.9	21
B-62	VA Educational Benefits - Duration	-	51.4	22
B-63	SSA Educational Benefits - Amount	-	46.4	22
B-64	SSA Educational Benefits - Duration	-	57.7	23

B-1 Was your son/daughter listed as an exemption on your Federal Income Tax Return for 1977?[1/]

Documentation Source	Produced in Interview		Used in Applying	
	Parent	Student	Parent	Student
NO DOCUMENTATION	18.9%	N/A	23.2%	N/A
1040 - line 6C	54.4		51.8	
1040A - line 5C	15.6		17.2	
1977 State Tax Form	1.1		0.7	
Notarized statement from parents.	0.2		0.1	
OTHER _____	9.8		7.0	
	100.0		100.0	
Cases:	924,121		824,514	

B-7 Did your son/daughter receive assistance worth $600 or more from you during 1977?[2/]

Documentation Source	Produced in Interview		Used in Applying	
	Parent	Student	Parent	Student
NO DOCUMENTATION	82.6%	N/A	82.9%	N/A
Deeds.	0.4		0.3	
Title transfers	0.0		0.1	
Cancelled checks	7.7		7.4	
Notarized statement from parents.	0.2		0.5	
OTHER _____	9.0		8.5	
	100.0		100.0	
Cases:	703,986		632,743	

[1/] Documentation required only from parents who claimed student as exemption.

[2/] Documentation required only from parents who claimed to have provided more than $600 in assistance.

B-8 Did your son/daughter receive assistance worth $600 or more from you during 1978?[1]

Documentation Source	Produced in Interview: Parent	Produced in Interview: Student	Used in Applying: Parent	Used in Applying: Student
NO DOCUMENTATION	84.9%	N/A	86.1%	N/A
Deeds	0.5		0.2	
Title transfers	0.0		0.0	
Cancelled checks	7.4		7.0	
Notarized statement from parents	0.0		0.1	
OTHER _____	7.1		6.4	
	100.0		100.0	
Cases:	661,318		588,344	

B-10 Are you a U.S. citizen?[2]

Documentation Source	Produced in Interview: Parent	Produced in Interview: Student	Used in Applying: Parent	Used in Applying: Student
NO DOCUMENTATION	N/A	30.9%	N/A	N/A
Birth certificate		61.9		
Baptismal certificate		2.4		
Passport		2.1		
Form 1-151 (Alien Reg. Receipt Card)		0.4		
Immigration and Naturalization Service Approval Notice		1.1		
LEFT IT BLANK		1.2		
		100.0		
Cases:		1,288,821		

[1] Documentation required only from parents who claimed to provide more than $600 assistance in 1978.

[2] Asked only of students who claimed citizenship.

B-11 Do you intend to become a permanent U.S. resident or a permanent resident of the Trust Territories of the Pacific Islands?[1/]

Documentation Source	Produced in Interview		Used in Applying	
	Parent	Student	Parent	Student
NO DOCUMENTATION	N/A	16.2%	N/A	15.7%
Passport		11.6		10.1
Form 1-151 (Alien Registration Receipt Card).		56.1		55.0
Immigration and Naturalization Service Approval Notice . . .		15.2		17.3
LEFT IT BLANK		1.4		1.9
		100.0		100.0
Cases:		52,845		44,608

B-12 Were you listed as an exemption on your parents' Federal Income Tax Return during 1977?[2/]

Documentation Source	Produced in Interview		Used in Applying	
	Parent	Student	Parent	Student
NO DOCUMENTATION	N/A	70.0%	N/A	64.4%
1040 - line 6C (parents)		8.0		10.1
1040A - line 5C (parents) . . .		5.1		6.6
1977 State Tax Form (parents)		0.0		0.3
Notarized statement from parents.		0.7		2.4
OTHER _____		15.9		15.7
LEFT IT BLANK		0.3		0.6
		100.0		100.0
Cases:		374,218		350,482

[1/] Documentation required only from students not claiming citizenship.

[2/] Documentation required only from independent students whose parents filed income tax returns.

B-15 Did you live with your parents for more than two consecutive weeks during 1977?[1/]

Documentation Source	Produced in Interview: Parent	Produced in Interview: Student	Used in Applying: Parent	Used in Applying: Student
NO DOCUMENTATION	N/A	49.9%	N/A	N/A
Cash receipts		16.0		
Lease agreements		12.5		
Cancelled checks		8.3		
Mortgage note		1.1		
Mortgage statement		3.0		
Notarized statement from parents		0.2		
Needs analysis forms		0.0		
OTHER _____		9.1		
LEFT IT BLANK		0		
		100.0		
Cases:		432,624		

B-16 Did you live with your parents for more than two consecutive weeks in 1978?[1/]

Documentation Source	Produced in Interview: Parent	Produced in Interview: Student	Used in Applying: Parent	Used in Applying: Student
NO DOCUMENTATION	N/A	41.8%	N/A	N/A
Cash receipts		16.8		
Lease agreements		16.7		
Cancelled checks		11.0		
Mortgage note		1.2		
Mortgage statement		3.1		
Notarized statement from parents		0.2		
Needs analysis forms		0.2		
OTHER _____		9.1		
LEFT IT BLANK		0.0		
		100.0		
Cases:		457,914		

[1/] Documentation required of all students who responded "no."

B-22 On the date you signed the application, what was the total size of your household, including yourself, spouse, dependent children and other persons who live with you and receive more than half their support from you?[1/]

Documentation Source	Produced in Interview: Parent	Produced in Interview: Student	Used in Applying: Parent	Used in Applying: Student
NO DOCUMENTATION	33.2%	56.9%	N/A	N/A
1040	42.8	11.2		
1040A	13.6	19.9		
Notarized statement	0.3	0.3		
OTHER _____	10.0	11.6		
LEFT IT BLANK	0.1	0.0		
	100.0	100.0		
Cases:	917,761	455,199		

B-23 You indicated that your household consisted of _____ persons. How many of them are enrolled in college or other education beyond high school at least half-time during the 1978-79 academic year?[1/]

Documentation Source	Produced in Interview: Parent	Produced in Interview: Student	Used in Applying: Parent	Used in Applying: Student
NO DOCUMENTATION	35.2%	25.0%	N/A	N/A
Institutional Commitment	25.5	30.3		
Notarized statement	1.0	1.0		
OTHER (Specify)_____	4.6	41.1		
Other financial aid form	3.6	2.6		
LEFT IT BLANK	0.1	0.1		
	100.0	100.0		
Cases:	922,361	455,193		

[1/] Documentation required of independent students and parents of dependent students only.

B-25 What is the total number of exemptions you claimed on your 1977 U.S. Income Tax Return?[1/]

Documentation Source	Produced in Interview		Used in Applying	
	Parent	Student	Parent	Student
NO DOCUMENTATION	15.0%	39.6%	16.9%	29.2%
1040 - line 7	52.4	14.5	52.1	20.2
1040A - line 6	20.0	38.8	21.3	42.9
OTHER _____	12.5	7.1	9.4	7.0
LEFT IT BLANK	0.0	0.0	0.4	0.7
	100.0	100.0	100.0	100.0
Cases:	742,096	285,066	692,257	274,493

B-26 What was your 1977 adjusted gross income reported on your 1977 income tax return?[1/]

Documentation Source	Produced in Interview		Used in Applying	
	Parent	Student	Parent	Student
NO DOCUMENTATION	12.0%	35.8%	12.0%	23.8%
1040 - line 31	54.9	14.7	53.9	20.5
1040A - line 10	20.3	39.0	22.2	45.0
OTHER _____	12.7	10.4	11.5	10.3
LEFT IT BLANK	0.1	0.0	0.3	0.4
	100.0	100.0	100.0	100.0
Cases:	722,208	274,984	679,381	269,152

[1/] Documentation required of independent students and parents of dependent students only.

B-27 What was your income and your spouse's 1977 income earned through employment?[1/]

Documentation Source	Produced in Interview		Used in Applying	
	Parent	Student	Parent	Student
NO DOCUMENTATION	10.5%	26.4%	9.6%	17.2%
1040 - line 8	46.4	13.5	47.1	17.8
1040A - line 7	18.9	36.3	20.0	40.2
W-2 Forms	11.5	17.0	11.3	16.5
Notarized statement	0.0	0.0	0.0	0.3
OTHER _____	12.7	6.9	11.7	7.2
LEFT IT BLANK	0.0	0.0	0.3	0.8
	100.0	100.0	100.0	100.0
Cases:	726,373	272,033	684,350	263,906

B-28 What was your total income tax amount paid in 1977?[1/]

Documentation Source	Produced in Interview		Used in Applying	
	Parent	Student	Parent	Student
NO DOCUMENTATION	13.4%	37.7%	11.4%	24.3%
1040 - line 54	53.2	15.3	53.6	21.1
1040A - line 13	20.1	38.6	22.9	45.0
Notarized statement	0.2	0.0	0.2	0.0
OTHER _____	12.8	8.2	11.5	8.1
LEFT IT BLANK	0.3	0.2	0.4	1.0
	100.0	100.0	100.0	100.0
Cases:	721,618	269,264	670,946	264,282

[1/] Documentation required of independent students and parents of independent students only.

B-29 What was your total 1977 itemized deduction amount?[1/]

Documentation Source	Produced in Interview		Used in Applying	
	Parent	Student	Parent	Student
NO DOCUMENTATION	22.1%	54.8%	25.4%	50.1%
Schedule A - line 39	55.8	22.0	55.9	30.3
Notarized statement	0.1	0.0	0.0	0.0
OTHER _____	20.3	21.6	16.8	16.8
LEFT IT BLANK	1.5	1.6	1.9	2.8
	100.0	100.0	100.0	100.0
Cases:	704,859	254,811	653,253	238,310

B-30 What were your total 1977 medical and/or dental expenses that were not covered by insurance, Medicare, Medicaid, or other health benefits?[1/]

Documentation Source	Produced in Interview		Used in Applying	
	Parent	Student	Parent	Student
NO DOCUMENTATION	58.3%	80.9%	50.3%	70.5%
1040 - Schedule A - lines 2 + 6[2/]	21.7	3.7	22.6	6.5
Cancelled checks	4.4	2.5	8.7	4.1
Cash receipts	3.0	2.8	3.6	3.3
Statement from physician	1.6	1.6	2.4	3.8
OTHER _____	9.7	6.9	9.4	7.6
LEFT IT BLANK	1.3	1.6	3.0	4.2
	100.0	100.0	100.0	100.0
Cases:	862,148	424,323	761,754	389,942

[1/] Documentation required only from independent students and parents of dependent students.

[2/] Final form of question--error in original question corrected during fieldwork.

B-31 What was your 1977 total dollar amount of casualty or theft losses that were not covered by insurance or otherwise repaid?[1/]

Documentation Source	Produced in Interview		Used in Applying	
	Parent	Student	Parent	Student
NO DOCUMENTATION	71.5%	89.8%	70.1%	86.4%
1040 - Schedule A - line 29 . .	20.9	4.4	20.9	6.4
Form 4684 (U.S. Tax) line 12	0.1	0.0	0.2	0.0
Police report	0.2	0.5	0.2	0.7
Insurance claims	0.2	0.5	0.2	0.4
OTHER _____	4.2	2.2	4.1	1.6
LEFT IT BLANK	2.9	2.5	4.0	4.5
	100.0	100.0	100.0	100.0
Cases:	860,877	418,235	783,164	391,015

B-33 How much elementary, junior high, or high school tuition/fees did you pay? Do not include amounts that were paid by a scholarship or other forms of student aid.[2/]

Documentation Source	Produced in Interview		Used in Applying	
	Parent	Student	Parent	Student
NO DOCUMENTATION	47.4%	42.8%	42.8%	52.0%
Cancelled checks	30.7	12.8	31.4	5.7
Cash receipts	6.5	22.6	8.4	18.5
Statement from school	10.5	8.1	10.5	8.2
OTHER _____	4.5	13.7	5.5	11.0
LEFT IT BLANK	0.4	0.0	1.3	4.6
	100.0	100.0	100.0	100.0
Cases:	159,053	24,118	142,588	20,265

[1/] Documentation required only from independent students and parents of dependent students.

[2/] Documentation required only from independent students and parents of dependent students who claimed to pay such fees.

B-35 What was the market value of your home at the time you signed the application?[1/]

Documentation Source	Produced in Interview		Used in Applying	
	Parent	Student	Parent	Student
NO DOCUMENTATION	37.7%	39.5%	40.6%	43.0%
Appraisal	2.2	0.0	3.6	2.2
Statement from local real estate office	3.1	8.8	4.7	7.6
Tax assessment forms	26.3	19.5	24.2	19.4
Property insurance	21.4	17.6	16.0	10.4
OTHER _____	9.0	14.6	10.3	15.1
LEFT IT BLANK	0.2	0.0	0.6	1.8
	100.0	100.0	100.0	100.0
Cases:	584,071	33,338	520,465	31,373

B-36 What was the amount of your unpaid mortgage and related debts on your home at the time you signed the application?[1/]

Documentation Source	Produced in Interview		Used in Applying	
	Parent	Student	Parent	Student
NO DOCUMENTATION	37.8%	27.5%	36.3%	37.0%
Monthly mortgage statements . .	27.2	26.9	32.0	23.2
Mortgage credit statement . . .	12.9	13.1	11.5	10.5
Copy of statement of loans on property	6.1	19.4	6.3	15.0
Purchase contract	2.3	2.4	2.1	2.3
Cancelled checks or receipts for mortgage payments	1.6	0.0	1.4	2.1
OTHER _____	12.0	8.9	9.4	6.0
LEFT IT BLANK	0.3	1.8	0.9	3.9
	100.0	100.0	100.0	100.0
Cases:	582,226	32,153	521,488	32,319

[1/] Documentation required only from independent students and parents of dependent students who claimed to own a home.

B-37 Which of the following documents do you have for validating that you do not own a home?[1]

Documentation Source	Produced in Interview		Used in Applying	
	Parent	Student	Parent	Student
NO DOCUMENTATION	22.1%	30.9%	N/A	N/A
Cash receipts	32.7	26.6		
Lease agreements	14.2	21.4		
Cancelled checks	15.4	12.2		
1040 - Schedule A, line 18 . . .	2.0	0.2		
OTHER _____	13.6	8.8		
	100.0	100.0		
Cases:	327,070	428,017		

B-39 What was the total market value of your investments, including stocks, bonds and other securities and the market value of other real estate, excluding farm and business, at the time you signed the application?[2]

Documentation Source	Produced in Interview		Used in Applying	
	Parent	Student	Parent	Student
NO DOCUMENTATION	63.7%	42.7%	53.6%	42.7%
Purchase contracts	6.2	41.2	7.8	41.2
Statement from real estate agent	1.6	0.0	0.9	0.0
Statement from stockbroker . . .	3.3	16.1	4.9	16.1
Property insurance	0.9	0.0	2.0	0.0
OTHER _____	23.3	0.0	26.4	0.0
LEFT IT BLANK	0.9	0.0	4.4	0.0
	100.0	100.0	100.0	100.0
Cases:	89,582	4,451	75,466	4,451

[1] Asked only of independent students and parents of dependent students who denied owning a home.

[2] Asked only of independent students and parents of dependent students who claimed to have other investments or real estate.

B-40 What was the amount of your total unpaid debts on investments and real estate at the time you signed the application?[1]

Documentation Source	Produced in Interview		Used in Applying	
	Parent	Student	Parent	Student
NO DOCUMENTATION	73.1%	77.5%	62.3%	61.9%
Statement from mortgage company	15.0	0.0	16.5	0.0
Statement from broker	0.0	0.0	1.0	0.0
Purchase contract	2.1	9.7	4.5	16.5
OTHER _____	9.2	12.8	10.8	21.6
LEFT IT BLANK	0.6	0.0	4.9	0.0
	100.0	100.0	100.0	100.0
Cases:	90,994	5,205	76,715	3,071

B-42 What was the market value of your (or your share of) business at the time you signed the application?[2]

Documentation Source	Produced in Interview		Used in Applying	
	Parent	Student	Parent	Student
NO DOCUMENTATION	64.1%	100.0%	59.8%	59.2%
Statement from real state office	1.7	0.0	1.9	0.0
Purchase agreement	5.3	0.0	3.1	0.0
Inventory assessment	2.7	0.0	3.4	0.0
Property insurance	0.1	0.0	0.1	0.0
OTHER _____	26.1	0.0	28.8	40.8
LEFT IT BLANK	0.0	0.0	0.0	0.0
	100.0	100.0	100.0	100.0
Cases:	74,670	5,245	66,934	5,245

[1] Documentation required only from independent students and parents of dependent students who claimed to have other investments or real estate.

[2] Documentation required only from independent students and parents of dependent students who claimed to own a business.

B-43 What were your (or your share of) mortgages or related debts from which your business assets were used as collateral at the time you signed the application?[1]

Documentation Source	Produced in Interview		Used in Applying	
	Parent	Student	Parent	Student
NO DOCUMENTATION	68.7%	100.0%	62.2%	59.2%
Copy of mortgage statement . . .	6.2	0.0	3.8	0.0
Copy of statements of loans against business	13.8	0.0	14.4	0.0
OTHER _____	9.6	0.0	15.2	40.8
LEFT IT BLANK	1.7	0.0	4.4	0.0
	100.0	100.0	100.0	100.0
Cases:	73,982	5,245	70,327	5,245

B-45 What was the market value of your (or your share of) farm at the time you signed the application?[2]

Documentation Source	Produced in Interview		Used in Applying	
	Parent	Student	Parent	Student
NO DOCUMENTATION	49.5%	100.0%	46.1%	0.0%
Statement from real estate office	3.4	0.0	6.2	0.0
Copy of ownership agreement . .	4.2	0.0	4.5	0.0
Statement of inventory	7.6	0.0	6.2	0.0
Property insurance	6.7	0.0	5.2	0.0
OTHER _____	28.7	0.0	31.8	0.0
LEFT IT BLANK	0.0	0.0	0.0	0.0
	100.0	100.0	100.0	100.0
Cases:	46,556	754	43,924	0

[1] Documentation required only from independent students and parents of dependent students who claimed to own a business.

[2] Documentation required only from independent students and parents of dependent students who claimed to own a farm.

B-46 What were your (or your share of) mortgages or related debts from which your farm assets were used as collateral at the time you signed the application?[1]

Documentation Source	Produced in Interview		Used in Applying	
	Parent	Student	Parent	Student
NO DOCUMENTATION	39.1%	100.0%	38.5%	0.0%
Mortgage statement	25.2	0.0	28.5	0.0
Copy of outstanding loans or debts	18.0	0.0	13.3	0.0
OTHER _____	17.7	0.0	19.7	0.0
	100.0	100.0	100.0	100.0
Cases:	47,419	754	47,330	0

B-49 What is the amount of veterans' benefits per month you receive other than educational benefits?[2]

Documentation Source	Produced in Interview		Used in Applying	
	Parent	Student	Parent	Student
NO DOCUMENTATION	36.9%	71.8%	33.5%	47.0%
VA Form	21.3	8.0	20.0	23.7
Statement from VA Office	26.4	20.3	27.2	29.3
Statement from VA counselor . .	0.0	0.0	0.0	0.0
OTHER _____	14.8	0.0	18.7	0.0
LEFT IT BLANK	0.6	0.0	0.7	0.0
	100.0	100.0	100.0	100.0
Cases:	72,759	7,983	61,297	7,294

1/ Documentation required only from independent students and parents of dependent students who claimed to own a farm.

2/ Documentation required only from independent students and parents of dependent students who claimed to have nontaxable income and noneducational veterans benefits.

B-51 What is the amount of Social Security benefits per month you receive other than educational benefits?[1/]

Documentation Source	Produced in Interview		Used in Applying	
	Parent	Student	Parent	Student
NO DOCUMENTATION	36.7%	29.2%	39.9%	36.1%
SS Form 2458	12.9	24.2	11.1	11.6
Statement from SS office	31.6	32.9	30.7	38.0
OTHER _____	18.8	13.7	18.4	14.3
	100.0	100.0	100.0	100.0
Cases:	149,301	2,855	117,171	20,830

B-53 How much do you receive in child support each month?[2/]

Documentation Source	Produced in Interview		Used in Applying	
	Parent	Student	Parent	Student
NO DOCUMENTATION	44.8%	67.8%	47.7%	46.0%
Divorce decree	27.9	19.0	25.3	27.0
Court order	10.1	6.7	12.4	13.7
Separation agreement	2.1	2.0	2.4	2.2
Notarized statement	1.8	1.8	2.0	2.0
OTHER _____	13.3	2.7	10.2	9.1
	100.0	100.0	100.0	100.0
Cases:	68,736	22,930	60,993	21,243

1/ Documentation required only from independent students and parents of dependent students who claimed to have nontaxable income generally, and Social Security benefits specifically.

2/ Documentation required only from independent students and parents of dependent students who claimed to have nontaxable income generally, and to receive child support payments specifically.

B-55 How much do you receive from AFDC and/or public assistance each month?[1/]

Documentation Source	Produced in Interview		Used in Applying	
	Parent	Student	Parent	Student
NO DOCUMENTATION	35.7%	44.1%	45.2%	50.0%
Public assistance letter	46.9	35.3	39.2	32.2
OTHER _____	17.4	20.6	15.6	17.7
	100.0	100.0	100.0	100.0
Cases:	79,630	97,142	56,604	74,423

B-57 What was the amount of earned income other than that reported on the 1040?[2/]

Documentation Source	Produced in Interview		Used in Applying	
	Parent	Student	Parent	Student
NO DOCUMENTATION	46.5%	49.6%	34.6%	45.9%
W-2 Forms	14.5	44.1	20.6	54.1
1099 MISC	0.0	0.0	0.0	0.0
OTHER _____	39.0	6.3	44.6	0.0
	100.0	100.0	100.0	100.0
Cases:	18,094	8,637	16,577	7,309

[1/] Documentation required of independent students and parents of dependent students who claimed to have nontaxable income generally, and AFDC or other public welfare specifically.

[2/] Documentation required of independent students and parents of dependent students who claimed to have nontaxable income generally, and other earned income.

B-60 When you signed your application, what was the amount of your cash, savings and checking accounts, excluding any amounts you received through educational loans or grants?[1/]

Documentation Source	Produced in Interview		Used in Applying	
	Parent	Student	Parent	Student
NO DOCUMENTATION	48.2%	64.6%	45.0%	55.9%
Bank books	24.6	18.4	26.1	24.5
Bank statements	23.7	13.7	22.6	13.6
OTHER _____	2.7	1.6	4.8	3.0
LEFT IT BLANK	0.8	1.7	1.6	3.1
	100.0	100.0	100.0	100.0
Cases:	872,463	257,294	786,199	180,242

B-61 What is the amount of veterans' educational benefits per month you receive?[2/]

Documentation Source	Produced in Interview		Used in Applying	
	Parent	Student	Parent	Student
NO DOCUMENTATION	N/A	41.9%	N/A	33.9%
VA Form		33.3		32.4
Statement from VA Office		22.6		24.5
Statement from VA counselor . .		0.0		1.1
OTHER _____		2.3		8.0
LEFT IT BLANK		0.0		0.0
		100.0		100.0
Cases:		1,307,362		59,255

[1/] Documentation required of independent students and parents of dependent students.

[2/] All students.

B-62 For how many months do you expect to receive these Veterans' educational benefits between July 1, 1978 and June 30, 1979?[1/]

Documentation Source	Produced in Interview		Used in Applying	
	Parent	Student	Parent	Student
NO DOCUMENTATION	N/A	51.4%	N/A	44.5%
VA Form		27.4		29.4
Statement from VA Office		17.6		20.1
Statement from VA counselor . .		1.1		3.4
OTHER _____		2.4		2.6
LEFT IT BLANK		0.0		0.0
		100.0		100.0
Cases:		59,404		54,841

B-63 If you are between the ages of 18 and 22, how much Social Security educational benefits will you receive per month?[2/]

Documentation Source	Produced in Interview		Used in Applying	
	Parent	Student	Parent	Student
NO DOCUMENTATION	N/A	46.4%	N/A	41.9%
SS Form 2458		13.0		14.8
Statement from SS Office		31.3		29.8
OTHER _____		9.3		11.7
LEFT IT BLANK		0.0		1.8
		100.0		100.0
Cases:		143,052		126,402

1/ Documentation required of all students who claimed nonzero VA educational benefits.

2/ Documentation required of all students between the age of 18 to 22 who were receiving benefits.

B-64 For how many months between July 1, 1978 and June 30, 1979 do you expect to receive these Social Security educational benefits?1/

Documentation Source	Produced in Interview		Used in Applying	
	Parent	Student	Parent	Student
NO DOCUMENTATION	N/A	57.7%	N/A	51.0%
SS Form 2458		10.7		9.8
Statement from SS Office		27.2		30.6
OTHER _____		4.0		8.0
LEFT IT BLANK		0.4		0.7
		100.0		100.0
Cases:		140,382		123,368

1/ Documentation required of all students between the age of 18 to 22 who were receiving benefits.

APPENDIX F

CHARACTERISTICS OF ERROR-PRONE APPLICATIONS

CHARACTERISTICS OF ERROR-PRONE APPLICATIONS

1. INTRODUCTION

The relationships between selected applicant/application characteristics (as reported on the SERs) and student award errors were also investigated. The first analysis approach considered was basically to select a set of characteristics which were likely to be related to errors, to identify the value or range of values for each characteristic associated with the greatest near error and/or error rate, and then to combine these values or ranges into a set of characteristics describing the most error prone applicants.

This type of tabular analysis can be quite instructive as error can be directly related to particular values of known variables. Unfortunately, when errors are tabulated against many such variables confusing and conflicting patterns develop and the tendency is to proceed to successively more complex cross-tabulations.1/ It was not possible to pursue this course due to time and resource constraints, so it was not attempted (specialized, analytical software for this purpose was not available either). So, rather than simply produce a series of two-way cross-classifications, an attempt was made to investigate multivariate models which directly estimated the likelihood that an application was in error.

The multivariate model approach has a number of desirable features in this application: an adequate model could be estimated from our sample; the model, if successful, would be easy to implement; and it can account for complex patterns in the data. Its chief drawback is that it is quite difficult to identify "which applications are in error" in a simple statement.

Two multiple regression equations were developed for this analysis: one which related negative (overaward) student errors to a set of SER elements; and one which related positive (underaward) errors to a similar (but not identical) set of SER elements. Separate equations (for overawards and underawards) were estimated to allow for the possibility that the determinants of these two types of error might be different. These efforts and their results are discussed below.

2. METHODOLOGY

A set of approximately 50 SER elements was initially selected for this analysis, encompassing such attributes as age, marital status, household size, dependency criteria, income, taxes, benefits, assets and debts, citizenship,

---

1/ Which would be difficult with the relatively small sample involved.

type of application, number of transactions, and eligibility index. These elements were recoded or transformed as necessary to produce yes-no or continuous numerical variables suitable for analysis. The existence of an error was deemed more important than the extent of such an error, and hence the error variables were also transformed into yes-no variables indicating the presence or absence of an award error.

It was necessary to weed out a number of potential variables in order to make the subsequent analysis manageable and meaningful. This was accomplished in three stages: first, simple bivariate correlation coefficients were calculated and used to eliminate variables which did not appear to be significantly related to award errors; second, since several groups of independent variables were highly inter-correlated (such as dependency criteria, income and tax data, and household data), only the variables within each such group which were correlated most strongly with award errors were retained; and third, variables with significant numbers of missing observations were excluded from the analysis. This process, which was performed simultaneously for underawards and overawards, resulted in the selection of approximately 20 variables for potential inclusion in each regression equation.

Stepwise multiple regression analysis was then used to determine the best linear combination of variables for predicting the likelihood of a student overaward or underaward (equations were estimated separately for the two types of errors).2/ Squared terms of the continuous numerical variables were also included in this process to capture second-order non-linear effects. The stepwise procedure was initially applied to unweighted data; the equations so obtained were then reestimated using weighted data (the unweighted and weighted equations were virtually identical for both error variables).

3. RESULTS

Four tables display the results of this analysis. Table F-1 lists the abbreviations and definitions for all the SER and error variables. Table F-2 presents the two estimated equations: the adjusted R squares are indices (ranging from a low of 0.0 to a high of 1.0) measuring the overall explanatory power of each equation (i.e., how well the SER elements explain the presence or absence of award errors). The estimated coefficients represent the increase or decrease in the likelihood of an award error (expressed in fractional terms) due to a one-unit increase in the corresponding independent variable; and the levels of significance (based on t-statistics) show the probability that the "true" value of each coefficient (as opposed to the estimated value) is, in fact, equal to zero.

2/ We recognize that the use of a 0/1 dependent variable in a linear form is a poor model specification and one which violates numerous assumptions. We also recognize that a stepwise procedure is an overly mechanical approach to the problem. Nonetheless, the approach was pursued as a fast method of attempting a multivariate approach to the problem. Clearly, additional work should be pursued to eradicate technical deficiencies in the model.

TABLE F-1

GLOSSARY OF STUDENT ERROR REGRESSION VARIABLES

Abbreviation	Definition
ADJGRINC	Adjusted gross income
CLAIM79	Applicant to be claimed as an exemption by parents in 1979 (1=yes, Ø=no)
ELIGINDX	Eligibility Index
ELIGIND2	Square of Eligibility Index
HOMEVAL2	Square of Home Value
HOUSESIZ	Household size (includes both assumed and actual data)
INCGROS2	Square of adjusted gross income (includes both assumed and actual data)
INVDEBT2	Square of investment debt
MDEACT	Multiple data entry code for ACT application (1=yes, Ø=no)
MDECSS	Multiple data entry code for CSS application (1=yes, Ø=no)
NETINV	Net investments (=investment value less investment debt)
NETINV2	Square of net investments
NONTXIN2	Square of nontaxable income
SNEGERRØ	Student had negative (overaward) error (1=yes, Ø=no)
SPOSERRØ	Student had positive (underaward) error (1=yes, Ø=no)
SSBENEFT	Educational Social Security benefits (annual amount--includes both assumed and actual data)
SSBENEF2	Square of educational Social Security benefits

TABLE F-2

STUDENT ERROR REGRESSION EQUATIONS

Student Overaward Equation

Dependent Variable: SNEGERRØ
Adjusted R Square: 0.12
Number of Observations: 980,000

Independent Variable	Estimated Coefficient
ADJGRINC	0.2798164 x 10-4
HOUSESIZ	-0.2611508 x 10-1
SSBENEFT	0.9563746 x 10-4
SSBENEF2	-0.7194213 x 10-8
HOMEVAL2	0.3356662 x 10-10
INVDEBT2	0.2316772 x 10-9
MDEACT	-0.8086235 x 10-1
MDECSS	-0.6841642 x 10-1
(Constant)	0.2139830

Student Underaward Equation

Dependent Variable: SPOSERRØ
Adjusted R Square: 0.27
Number of Observations: 950,000

Independent Variable	Estimated Coefficient
ELIGINDX	0.6040957 x 10-3
ELIGIND2	-0.1399353 x 10-6
INCGROS2	-0.8620800 x 10-9
NONTXIN2	0.3248005 x 10-8
NETINV	0.1362604 x 10-4
NETINV2	-0.1577702 x 10-9
SSBENEFT	-0.2165953 x 10-4
CLAIM79	0.4575500 x 10-1
(Constant)	-0.9468752 x 10-2

Table F-3 contains two matrices of coefficients which show how strongly each variable in each equation was correlated with each other variable in that equation. (Coefficients with absolute values close to one indicate high (strong) correlations, while coefficients with absolute values close to zero indicate low (weak) correlations.) Finally, Table F-4 displays the means and standard deviations of each variable used in the two equations (based on the weighted sample sizes given in Table F-2).

For the student overaward equation, all of the financial variables (adjusted gross income, social security benefits, home value, and investment debt) were positively associated with the existence of an overaward. For all of these variables, the likelihood of such an error increased as their value increased. On the other hand, applications with larger households and/or applications using the ACT or CSS form (rather than the BEOG form) were less likely to result in a student overaward. These findings are consistent with those presented earlier in this section, which revealed that errors in adjusted gross income, household size, home value, and investments all resulted in substantial overawards.

For the student underaward equation (which had a significantly higher level of explanatory power), the financial effects were more mixed. Nontaxable income and net investment assets were positively associated with underaward errors, but these effects were at least partially offset by the fact that adjusted gross income and social security benefits were both negatively related to underaward errors. Applications with high eligibility indices and applications where the student expected to be claimed by his/her parents in 1979 were also more likely to result in underawards. Again, these findings are consistent with the previously reported high impact of these SER elements on underawards.

4. EVALUATION OF MODEL

The regression equations serve two purposes. First, they provide additional evidence that certain SER elements are strongly associated with negative and/or positive award errors. This is useful in determining which elements to select for computer edits and/or which students to validate. Second, the equations provide a means of predicting the likelihood that a given application will result in an award error, as well as a means of efficiently selecting applications for review and edit.

Since the dependent variables in both equations are specified as Ø-1 variables denoting the presence or absence of an award error, the estimated values of the dependent variables generated by applying the estimated regression coefficients to individual applicant data can be used as scores indicating the likelihood or probability of each type of error for a given applicant. As an example, suppose a given applicant had the following SER data (all figures are purely hypothetical see Table F-1 for variable definitions):

TABLE F-3

STUDENT ERROR REGRESSION CORRELATION COEFFICIENTS

Student Overaward Equation

	SPOSERR2	ELIGINDX	ELIGIND2	INCGROS2	NONTXIN2	NETINV	NETINV2	SSBENEFT	CLAIM79
SPOSERR2	1.00000	0.44588	0.37922	0.10202	0.17051	0.08943	0.03812	0.01110	0.09779
ELIGINDX	0.44588	1.00000	0.92372	0.55766	0.01036	0.05519	0.00782	0.03026	0.20701
ELIGIND2	0.37922	0.92372	1.00000	0.47202	0.01058	0.04965	0.00869	0.03159	0.14015
INCGROS2	0.10202	0.55766	0.47202	1.00000	-0.23382	0.00102	-0.01757	-0.11683	0.40233
NONTXIN2	0.17051	0.01036	0.01058	-0.23382	1.00000	-0.01737	-0.01790	0.27101	-0.07099
NETINV	0.08943	0.05519	0.04965	0.00102	-0.01737	1.00000	0.86646	-0.00697	0.06763
NETINV2	0.03812	0.00782	0.00869	-0.01757	-0.01790	0.86646	1.00000	-0.01188	0.03052
SSBENEFT	0.01110	0.03026	0.03159	-0.11683	0.27101	-0.00697	-0.01188	1.00000	0.00266
CLAIM79	0.09779	0.20701	0.14015	0.40233	-0.07099	0.06763	0.03052	0.00266	1.00000

Student Underaward Equation

	SPEGERR	ADJGRINC	HOUSESIZ	SSBENEFT	SSBENEF2	HOMEVAL2	INVDEBT2	MDEACT	MDECSS
SPEGERR	1.00000	0.28736	0.22758	0.02583	0.00270	0.09301	0.06841	-0.00109	-0.01305
ADJGRINC	0.28736	1.00000	0.44186	-0.14491	-0.08190	0.16146	0.00732	0.08797	0.02790
HOUSESIZ	0.22758	0.44186	1.00000	-0.06307	-0.01585	0.22025	-0.00048	0.03554	0.01455
SSBENEFT	0.02583	-0.14491	-0.06307	1.00000	0.90431	-0.01298	-0.01367	-0.03037	0.07249
SSBENEF2	0.00270	-0.08190	-0.01585	0.90431	1.00000	-0.00939	-0.00680	-0.04840	0.08946
HOMEVAL2	0.09301	0.16146	0.22025	-0.01298	-0.00939	1.00000	0.06202	0.04527	0.04940
INVDEBT2	0.06841	0.00732	-0.00048	-0.01367	-0.00680	0.06202	1.00000	0.07665	-0.04001
MDEACT	-0.00109	0.08797	0.03554	-0.03037	-0.04840	0.04527	0.07665	1.00000	-0.57066
MDECSS	-0.01305	0.02790	0.01455	0.07249	0.08946	0.04940	-0.04001	-0.57066	1.00000

TABLE F-4

STUDENT ERROR REGRESSION DESCRIPTIVE STATISTICS

Student Overaward Equation

VARIABLE	MEAN	STANDARD DEV
SPOSEWRK	0.1685	0.3743
ELIGIADJ	424.4592	495.5287
ELIGIBS2	425714.0256	705446.7688
INCGROS2	67144492.5723	96671052.2187
NONTXIN2	66151[illegible].9454	15550035.4541
NETINV	471.9722	3314.7638
NETINV2	11210398.2143	177427824.5877
SSBENEFT	281.3165	1144.2219
CLAIM79	[illegible].4451	0.4979

Student Underaward Equation

VARIABLE	MEAN	STANDARD DEV
SPOSEWRK	0.2491	0.4319
ADJGRINC	5967.9197	5623.0754
HOUSESIZ	4.1180	2.2663
SSBENEFT	292.5769	1149.2274
SSBENEF2	1[illegible]72.0177	11541295.1645
HOMEVAL2	[illegible]1[illegible].1463	937252221.0653
INVDEBT2	[illegible].0025	123714803.7499
MDEACT	0.2812	0.4496
MDEGSS	0.4543	0.4979

ADJGRINC = \$10,000 ($=1x10^4$)
CLAIM79 = Ø
ELIGINDX = 1,000 ($=1x10^3$)
ELIGIND2 = 1,000,000 ($=1x10^6$)
HOMEVAL2 = \$1,000,000,000 ($=1x10^9$)
HOUSESIZ = 4
INCGROS2 = \$100,000,000 ($=1x10^8$)
INVDEBT2 = \$1,000,000 ($=1x10^6$)
MDEACT = 1
MDECSS = Ø
NETINV = \$1,000 ($=1x10^3$)
NETINV2 = \$1,000,000 ($=1x10^6$)
NONTXIN2 = \$1,000,000 ($=1x10^6$)
SSBENEFT = \$100 ($=1x10^2$)
SSBENEF2 = \$10,000 ($=1x10^4$)

The predicted overaward score using the student overaward equation, would therefore be $(0.2798164 \times 10^{-4})(1x10^4) - (0.2611508 \times 10^{-1})(4) + (0.9563746 \times 10^{-4})(100) - (0.7194213 \times 10^{-8})(1x10^{-4}) + (0.3356662 \times 10^{-10})(1x10^9) + (0.2316772 \times 10^{-9})(1x10^6) - (0.8086235 \times 10^{-1})(1) - (0.6841642 \times 10^{-1})(0) + 0.2139830 = \underline{.35}$ (approx). The predicted underaward scores using the student underaward equation, would therefore be $(0.6040957 \times 10^{-3})(1x10^3) - (0.1399353 \times 10^{-6})(1x10^6) - (0.8620800 \times 10^{-9})(1x10^8) + (0.3248005 \times 10^{-8})(1x10^6) + (0.136204 \times 10^{-4})(1x10^3) - (0.1577702 \times 10^{-9})(1x10^6) - (0.2165953 \times 10^{-4})(100) + (0.4575500 \times 10^{-1})(0) - (0.9468752 \times 10^{-2} = \underline{.38}$ (approx). These scores in themselves are meaningless so for the equation to be of use it is necessary that high scores be associated with high probabilities of error and vice versa. To test the model, the equations were run against the sample and predicted scores were generated for each case. These data were weighted so that a simulation of the operation on the BEOG universe was obtained.[3/] Tables F-5 and F-6 display, for arbitrarily chosen

---

3/ A better procedure would have been to estimate the model on a half sample and evaluate it on the other half.

Table F-5

STUDENT OVERAWARD LIKELIHOODS

Scores[1]	N Selected[2]	N Errors[3]	Error Rate[4]	Rel. Effic.[5]	%Total[6]	$ Errors[7]	% Total[8]
.10	838,271	236,970	.283	1.141	97.5%	$81.7	96.1%
.20	554,998	197,744	.356	1.435	81.3	66.1	77.7
.30	347,679	140,615	.404	1.629	57.8	45.6	53.6
.40	167,748	82,191	.490	1.976	33.8	27.0	31.8
.50	49,255	27,945	.567	2.286	11.5	9.5	11.2
.60	12,708	11,311	.890	3.589	4.7	3.7	4.3
.70[9]	831	831	1.000	4.032	0.3	0.1	0.2

1/ Score cut-off level

2/ Number of students selected (out of 980,000 for whom necessary error and application data were available)

3/ Number of errors found among students selected

4/ Rate of error found among students selected (= 3 / 2)

5/ Relative efficiency compared to error rate for entire subsample (= 4 /.248)

6/ Proportion of total errors in subsample (243,000) accounted for by 3

7/ Dollar value of errors found among students selected (in millions)

8/ Proportion of total dollar amount of errors in subsample ($85 million) accounted for by 7

9/ No cases had L over .80

Table F-6

STUDENT UNDERAWARD LIKELIHOODS

Score[1/]	N Selected[2/]	N Errors[3/]	Error Rate[4/]	Rel. Effic.[5/]	%Total[6/]	$ Errors[7/]	% Total[8/]
.10	476,810	151,175	.317	1.876	94.4%	$44.4	98.4%
.20	363,950	139,786	.384	2.272	87.3	42.4	94.0
.30	241,920	109,111	.451	2.669	68.2	37.1	82.4
.40	143,253	78,479	.548	3.243	49.0	28.5	63.3
.50	63,826	38,213	.599	3.544	23.9	15.9	35.4
.60	22,015	17,522	.796	4.710	10.9	8.7	19.2
.70	12,113	9,688	.800	4.734	6.1	4.9	10.9
.80	4,498	4,498	1.000	5.917	2.8	2.4	5.3
.90	736	736	1.000	5.917	0.5	0.6	1.4

1/ Score cut-off level

2/ Number of students selected (out of 950,000 for whom necessary error and application data were available)

3/ Number of errors found among students selected

4/ Rate of error found among students selected (= 3 / 2)

5/ Relative efficiency compared to error rate for entire subsample (= 4 /.169)

6/ Proportion of total errors in subsample (160,000) accounted for by 3

7/ Dollar value of errors found among students selected (in millions)

8/ Proportion of total dollar amount of errors in subsample ($45 million) accounted for by 7

TABLE A-23[1/]

DISTRIBUTION OF DISCREPANCY BETWEEN SER ELEMENT AND VERIFIED SER ELEMENT

DISCREPANCY = VERIFICATION ELEMENT - SER ELEMENT

BUSINESS--PRESENT MARKET VALUE

	DISCREPANCY	ALL RESPONSES	NONZERO RESPONSES[2/]
Potential Overaward	$5001 OR MORE	0.9%	13.3%
	$4001 TO $5000	0.1	1.4
	$3001 TO $4000	0.3	4.4
	$2001 TO $3000	0.1	1.4
	$1001 TO $2000	0.4	5.9
	$1 TO $1000	0.4	5.9
	$0	96.2	43.2
Potential Underaward	-$1 TO -$1000	0.4	5.9
	-$1001 TO -$2000	0.2	2.8
	-$2001 TO -$3000	0.2	2.8
	-$3001 TO -$4000	0.1	1.4
	-$4001 TO -$5000	0.1	1.4
	-$5001 OR LESS	0.5	7.3
		100%	100%
	WEIGHTED CASES	1,287,095	86,235
		MEAN = $162.26	MEAN = $2,420.02

1/ Element is based on student information for independent students, and parent information for dependent students.

2/ Nonzero response to either verification or SER element.

TABLE A-24[1/]

DISTRIBUTION OF DISCREPANCY BETWEEN SER ELEMENT AND VERIFIED SER ELEMENT

DISCREPANCY = VERIFICATION ELEMENT - SER ELEMENT

BUSINESS--UNPAID MORTGAGE PRINCIPAL OR DEBTS

	DISCREPANCY	ALL RESPONSES	NONZERO RESPONSES[2/]
Potential Overaward	-$5001 OR LESS	0.4%	10.1%
	-$4001 TO -$5000	0.1	2.6
	-$3001 TO -$4000	0.1	2.6
	-$2001 TO -$3000	0.2	5.2
	-$1001 TO -$2000	0.2	5.2
	-$1 TO -$1000	0.3	7.6
	$0	96.9	22.7
Potential Underaward	$1 TO $1000	0.5	12.6
	$1001 TO $2000	0.1	2.6
	$2001 TO $3000	0.1	2.6
	$3001 TO $4000	0.2	5.2
	$4001 TO $5000	0.1	2.6
	$5001 OR MORE	0.7	17.7
		100%	100%
	WEIGHTED CASES	1,287,095	51,483
		MEAN = $97.78	MEAN = $2,437.15

1/ Element is based on student information for independent students, and parent information for dependent students.

2/ Nonzero response to either verification or SER element.

score levels, the number of cases from the QC sample which had scores exceeding that level, the number of these cases which were in error, and the relative efficiency of selecting error-containing cases using the equation versus a random selection procedure. Successively higher cutoff levels yield higher error identification rates and thus greater relative efficiency in selection as compared to random selection. For example, Table F-5 reveals that one could select one-sixth of all applicants (those with overaward scores greater than .40) and identify one-third of all applicants with overaward errors, doubling the efficiency of random selection.

5. SUMMARY

In this Appendix a preliminary investigation into building multivariate models to predict which applications are likely to result in overawards or underawards due to student error was presented. The model was developed based solely upon data which would be available at the time the application is processed, so that it or a derivative could be implemented with little complication by the application processor.

The model investigated suffers from certain technical deficiencies arising from the way in which the equation is specified (0/1 dependent variable, no special estimation procedures) in the mechanical way in which it was created (i.e., through stepwise regression), and in the manner in which it was tested (i.e., on the same database upon which it was estimated). Nonetheless, these compromises were made in the interest of making a first examination of the feasibility of a multivariate modeling approach to the selection of error-prone applications under extreme time and resources constraints.

Despite the limitations, the models, when simulated against the sample data, tended to indicate that the probability of selecting error-prone applications might be enhanced significantly and that further efforts in this area should be pursued.

APPENDIX G

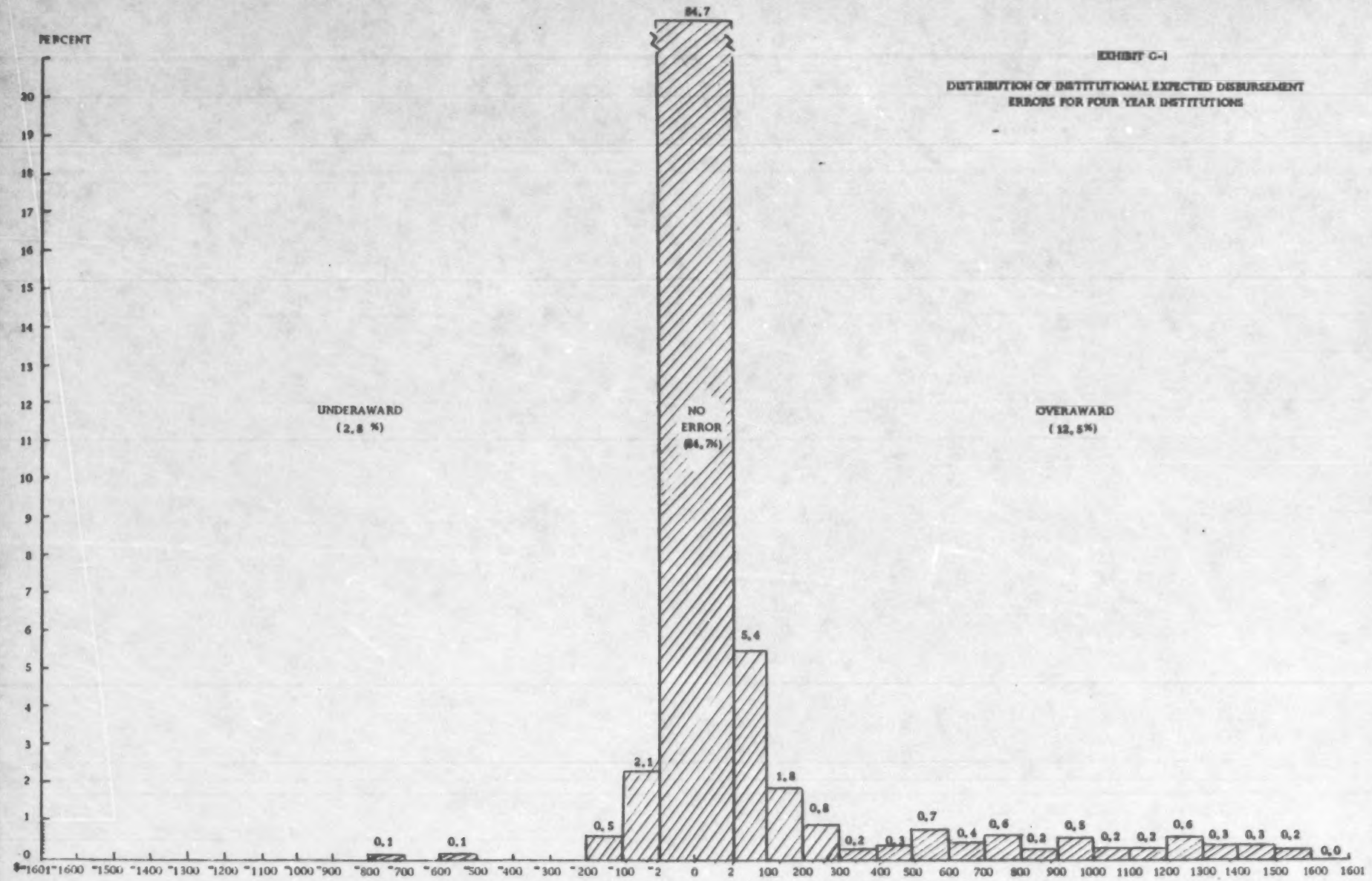
INSTITUTIONAL ERRORS BY TYPE AND CONTROL OF SCHOOL

INSTITUTIONAL ERRORS BY TYPE AND CONTROL OF SCHOOL

The following exhibits depict the distributions of institutional errors by type and control of school. Affidavit of Educational Purpose errors are excluded.

EXHIBIT G-1

DISTRIBUTION OF INSTITUTIONAL EXPECTED DISBURSEMENT ERRORS FOR FOUR YEAR INSTITUTIONS



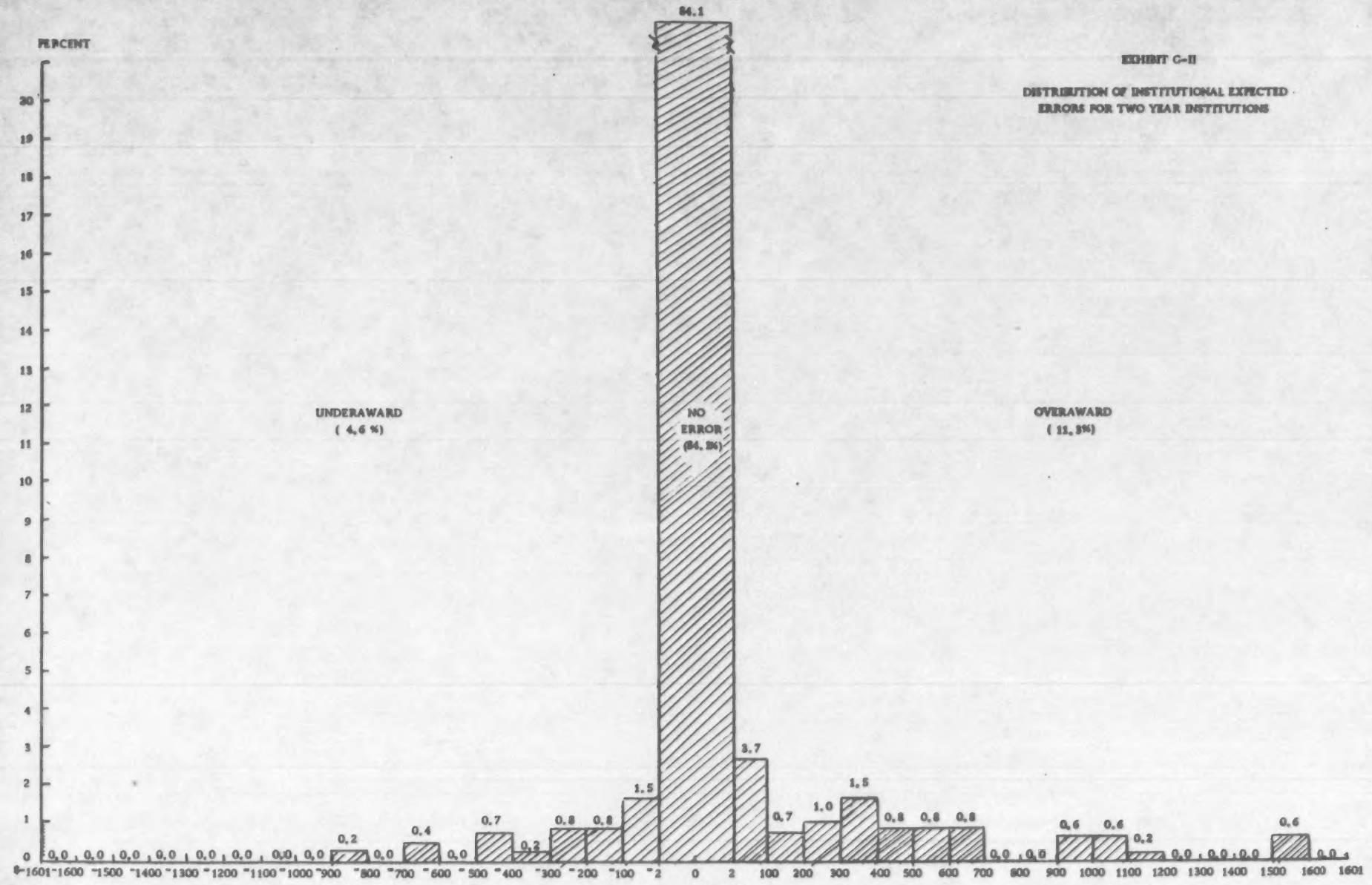
MEAN UNDERAWARD = $-102

MEAN ERROR = $46

MEAN OVERAWARD = $387

EXHIBIT C-II

DISTRIBUTION OF INSTITUTIONAL EXPECTED ERRORS FOR TWO YEAR INSTITUTIONS



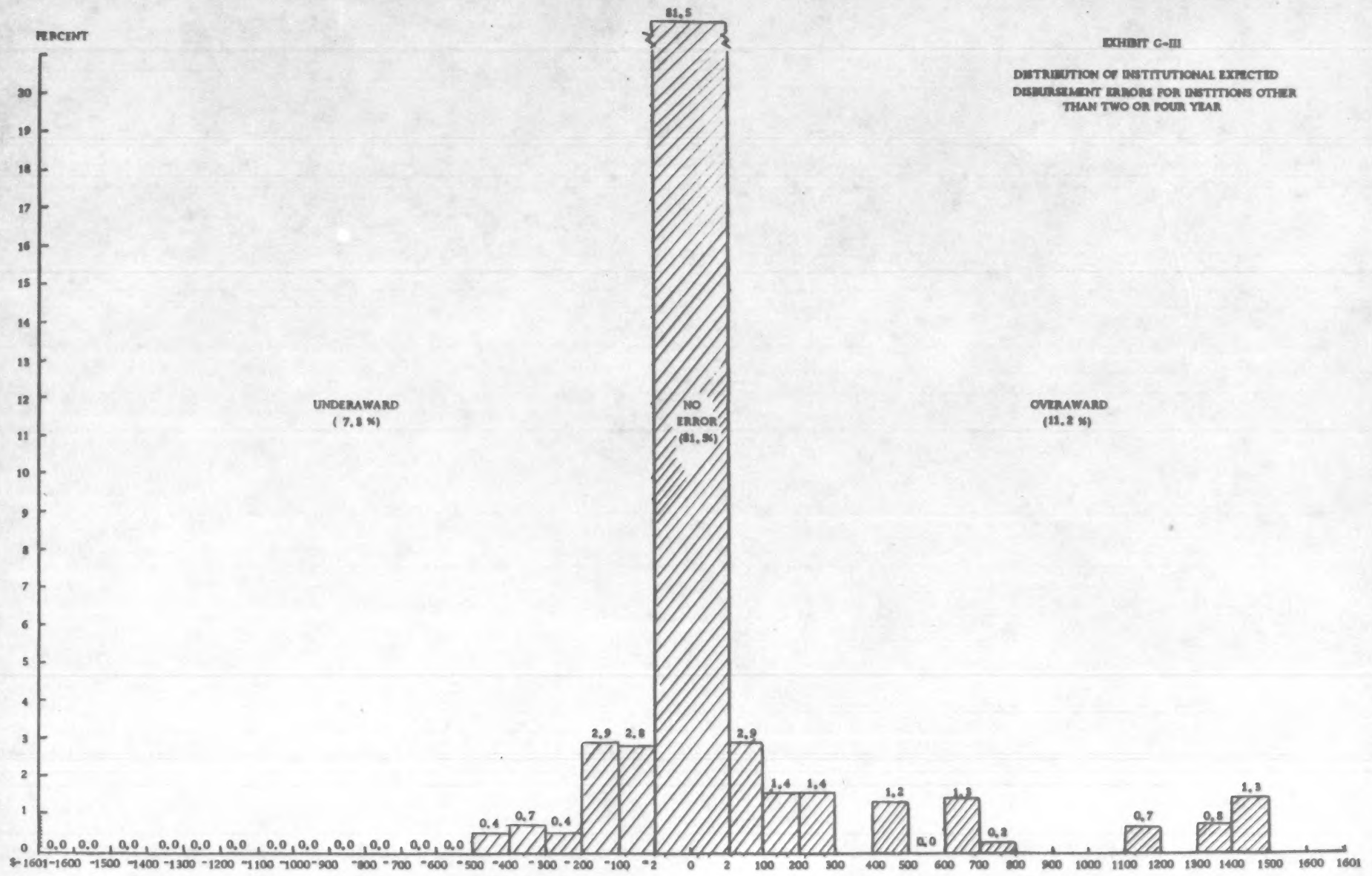
MEAN UNDERAWARD = $-259

MEAN ERROR = $33

MEAN OVERAWARD = $412

EXHIBIT G-III

DISTRIBUTION OF INSTITUTIONAL EXPECTED DISBURSEMENT ERRORS FOR INSTITUTIONS OTHER THAN TWO OR FOUR YEAR



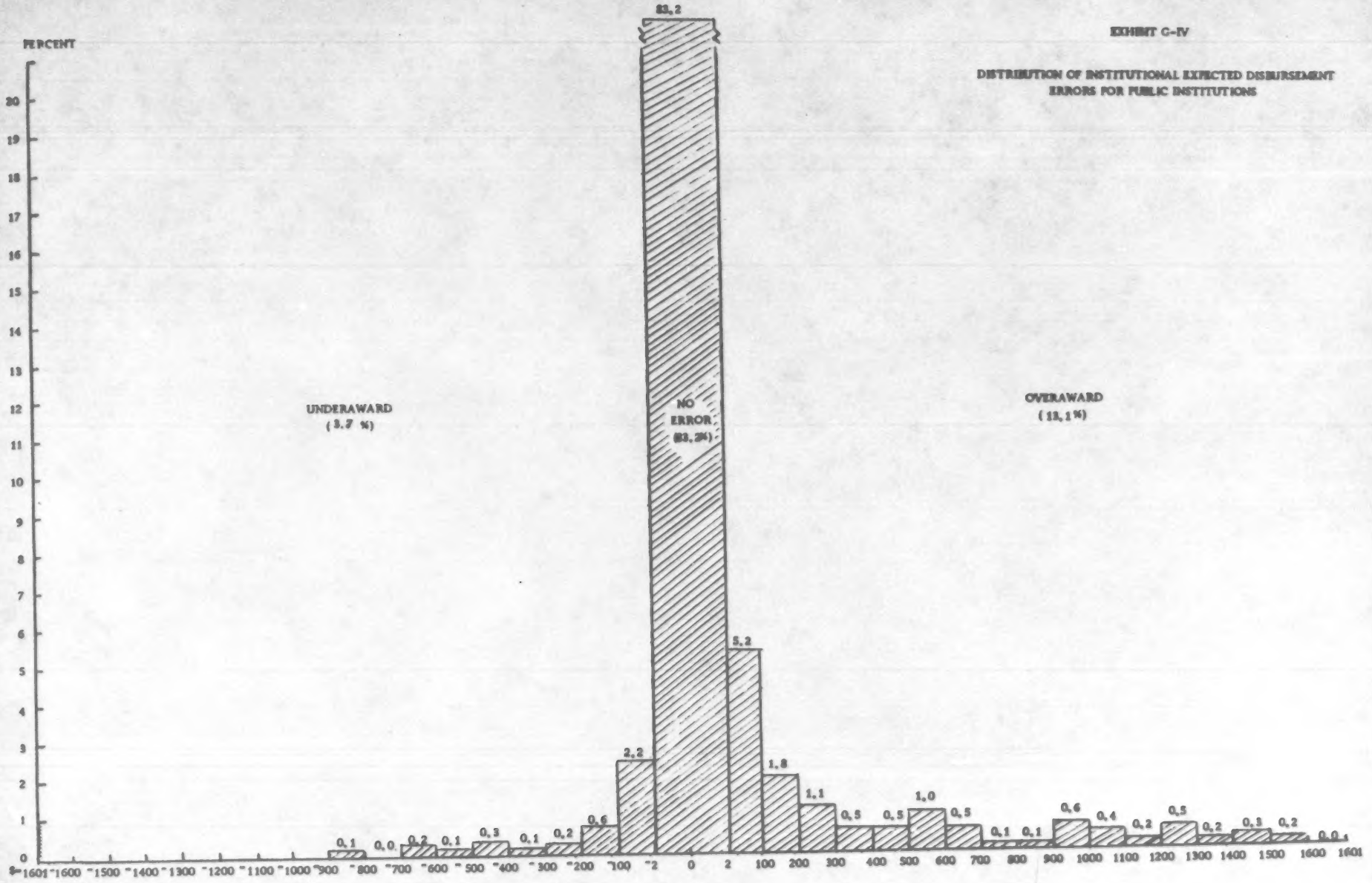
MEAN UNDERAWARD = $-149

MEAN ERROR = $49

MEAN OVERAWARD = $544

EXHIBIT G-IV

DISTRIBUTION OF INSTITUTIONAL EXPECTED DISBURSEMENT ERRORS FOR PUBLIC INSTITUTIONS



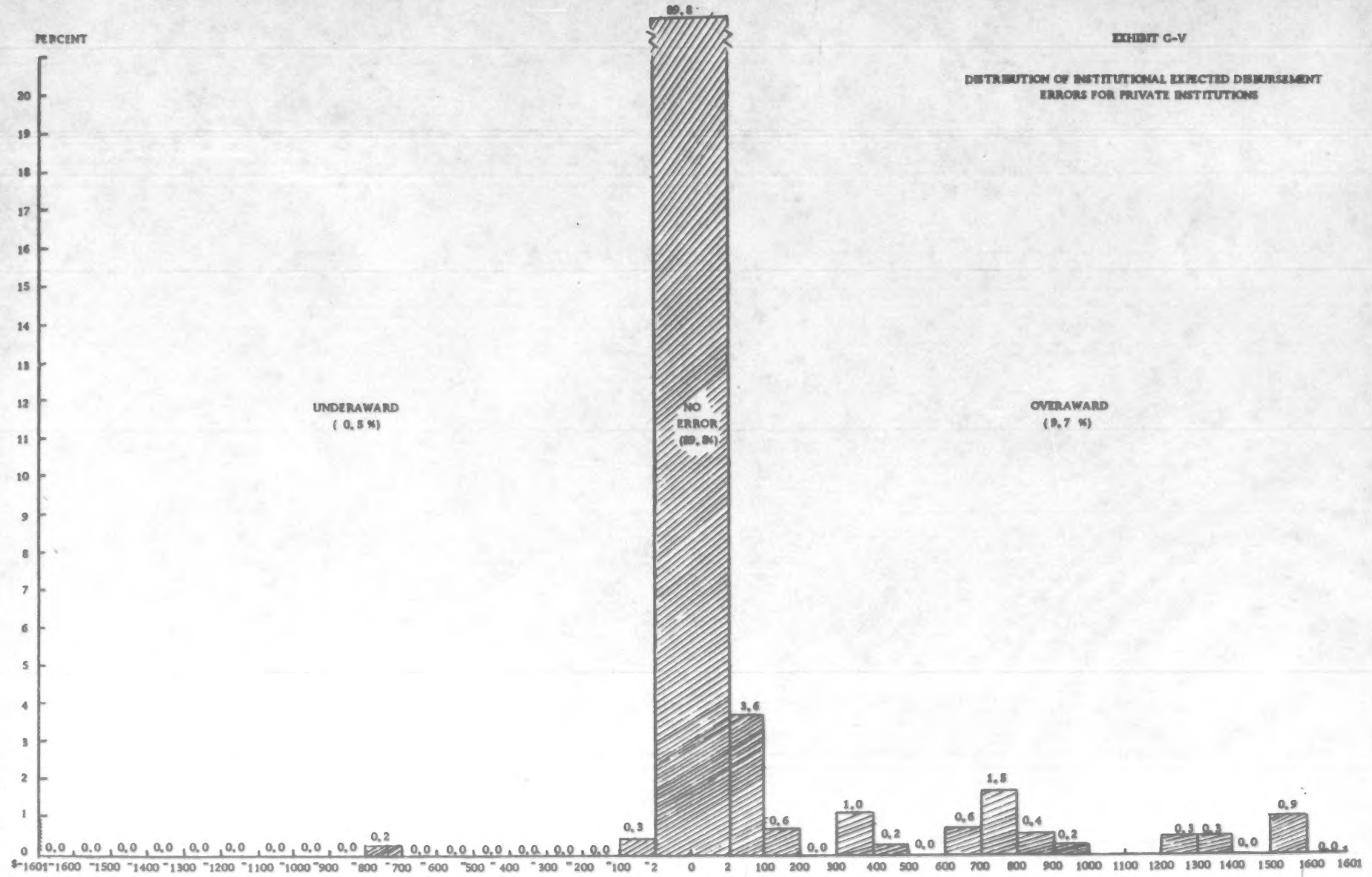
MEAN UNDERAWARD = $-168

MEAN ERROR = $43

MEAN OVERAWARD = $374

EXHIBIT G-V

DISTRIBUTION OF INSTITUTIONAL EXPECTED DISBURSEMENT ERRORS FOR PRIVATE INSTITUTIONS



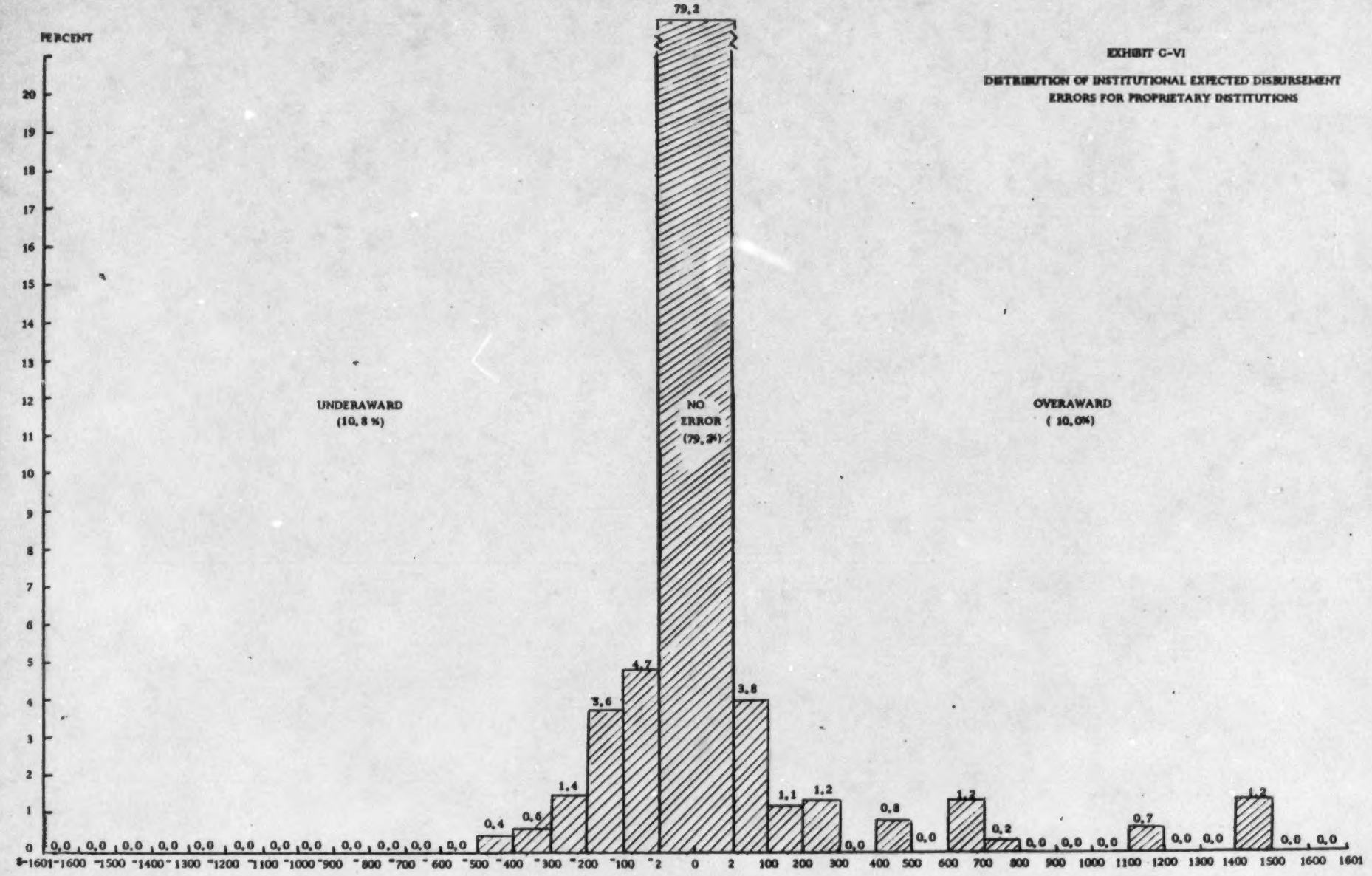
MEAN UNDERAWARD = $-368

MEAN ERROR = $49

MEAN OVERAWARD = $519

EXHIBIT G-VI

DISTRIBUTION OF INSTITUTIONAL EXPECTED DISBURSEMENT ERRORS FOR PROPRIETARY INSTITUTIONS



MEAN UNDERAWARD = $-130

MEAN ERROR = $30

MEAN OVERAWARD = $444

APPENDIX H

QUALITY CONTROL OF DATA COLLECTION AND DATA PROCESSING PROCEDURES

QUALITY CONTROL OF DATA COLLECTION AND DATA PROCESSING PROCEDURES

Extensive quality control measures were utilized throughout the data collection and data processing phases of the study. The major quality control measures are summarized below.

Institutional Data

- Interviewer Training--All field staff were given thorough instructions in the programmatic, procedural, and international requirements of the data collection effort.

- Multiple Briefings--Several times during the early phases of the project, field staff were assembled and data collection problems/issues were aired and discussed. This allowed immediate operational feedback for the field staff and project team.

- Continued Review Of Work--Data collection instruments were spot-checked by senior project staff. The purpose of this review was to verify that each interviewer was collecting the proper data set and completing the forms according to established procedures.

- Continuous Telephone Coverage--Field staffers were encouraged to call in with problems or issues. A senior staff member was "on duty" to receive calls and render assistance or provide instructions. All calls were recorded in a telephone log.

- Quality Control visits by MACRO and USOE staff verified the integrity of the interviewers' data collection efforts. Additionally, interviewers were provided immediate on-site technical assistance if necessary.

- Exit interviews were held with FAOs at which time discrepancies found in benefit calculation, payments, and in other institutional management practices were discussed.

- The questionnaires were edited, keypunched, and machine edited.

- Comparison Of Ten Percent Of The Final Computer Files Against The Original Part I Forms--One hundred percent of all data elements were compared to check for errors in processing and key entry of the information. Error rates of 0.6 percent for data entry and 0.6 percent for transcription were estimated and judged to be acceptable. All detected errors were corrected.

- Telephone Callback Of A Sample Of FAOs For A Sample Of Questions To Examine Response Stability--Questions were selected for which a maximum amount of response variability was likely to occur in order to evaluate respondent variability. In the worst cases, agreement rates between the original interview response and the callback response differed in 30 percent of the cases, with no systematic shift detectable. Therefore, although such variability clearly contributes to the error of estimate, the amount of bias introduced seems negligible.

Student and Parent Data

- Regional Field Supervisors and Interviewer Training--Six field supervisors and 114 parent/student interviewers were recruited and trained in four, five-day training sessions held across the country. All field staff were given thorough instructions in the programmatic, procedural, and informational requirements of the data collection effort. In addition the field supervisors were trained in administrative procedures such as making assignments, receiving completed materials, quality control of data collection efforts, and editing and correction of data.

- Continuous Communications, Monitoring, and Reporting--A system of continuous communication, monitoring, and reporting between field interviewers and the Rockville staff through the regional field supervisors was established and implemented. Problems in assignments, appointments, interviews and questionnaire items came up to the Rockville office through the field supervisors for decisions, and responses through field memos, policy changes, and procedural modifications went down to the interviewers through the field supervisors through daily telephone contacts.

- Field Quality Control Procedure--Field Quality Control included: (1) editing and correction of questionnaires by the interviewers; (2) summary field edits by the field supervisors; and (3) field observations by Westat's Rockville supervisory staff and field supervisory staff; and by USOE monitors.

- Rockville Quality Control Procedure--After the questionnaires were transmitted to Westat by the field supervisors, and logged, the SER check was performed. The actual SER values were compared with the values reported on the questionnaire. When discrepancies beyond those allowed were discovered, the clerks listed them on the discrepancy list attached to the questionnaire form. Questionnaires were then coded and reviewed by the supervisors. Additional discrepancies noted were added to the discrepancy list. Questionnaires with discrepancies noted were sent to the telephone center for follow-up with students or with parents. About 1,100 students or parents were called for verification of data. The questionnaires were keypunched and machine edited only after the extensive verification procedure described above.

- For added insurance, a 10 percent random sample of students and parents were selected for interview reliability check over the telephone.

- After a tabular run of the data file, all suspicious values were pulled out for a final computer file check against the original questionnaire.

APPENDIX I

SAMPLING ERRORS FOR SELECTED INSTITUTIONAL AND STUDENT ERRORS

SAMPLING ERRORS FOR SELECTED INSTITUTIONAL AND STUDENT ERRORS

The following tables present estimated sampling errors for key recipient and institutional estimates. It should be noted that these values differ slightly from those reported in the text because the text values employed individual corrections for item nonresponse while the estimates reported do not. Such corrections do not affect the estimated coefficients of variation (C.V.s), so that corrected standard errors can be derived by multiplying the C.V.s reported in this appendix by the appropriate estimates in the text.

Table 1-10. Sampling errors for key recipient statistics.

Statistic	Esti-mate	Std. error	Coef. of Variation
Number of recipients with overpayments (thousands)			
Due to recipient error	329.7	35.9	0.11
By control			
Public	201.4	22.5	0.11
Private	94.6	10.7	0.11
Proprietary	33.6	6.8	0.20
By type			
Four year	224.0	23.7	0.11
Two year	77.4	9.0	0.12
Other	28.3	6.0	0.21
By application			
BEOG	72.7	9.9	0.14
FAF	72.1	14.7	.20
FFS	170.6	23.6	.14
Other	13.4	5.9	.45
Due to institutional error	146.0	22.0	0.15
By control			
Public	110.9	16.0	0.14
Private	25.7	4.4	0.17
Proprietary	9.4	2.7	0.28
By type			
Four year	97.1	17.6	0.18
Two year	39.5	5.8	0.15
Other	9.5	2.6	0.28
By application			
BEOG	33.5	7.8	0.23
FAF	37.0	7.0	0.19
FFS	71.9	14.0	0.19
Other	2.4	1.7	0.71

Table 1-10. Sampling errors for key recipient statistics

Statistic	Esti-mate	Std. error	Coef. of Variation
Overpayments (millions of dollars)			
Due to recipient error	118.3	13.1	0.11
By control			
Public	76.6	8.2	0.11
Private	32.3	4.7	0.14
Proprietary	9.4	1.9	0.20
By type			
Four year	77.4	9.0	0.12
Two year	31.7	3.9	0.12
Other	9.2	1.8	0.20
By application			
BEOG	29.7	4.3	0.15
FAF	26.5	5.1	0.19
FFS	56.0	8.3	0.15
Other	5.8	2.9	0.50
Due to institutional error	59.0	8.3	0.14
By control			
Public	41.4	7.0	0.17
Private	13.3	2.1	0.15
Proprietary	4.2	2.5	0.59
By type			
Four year	37.5	5.4	0.14
Two year	16.3	4.0	0.24
Other	5.1	2.5	0.48
By application			
BEOG	12.4	3.3	0.27
FAF	14.1	3.3	0.24
FFS	29.7	5.9	0.20
Other	*	*	*

*Too few errors and applications to make estimates.

Table 1-10. Sampling errors for key recipient statistics.

Statistc	Esti-mate	Std. error	Coef. of Variation
Number with underpayments (thousands)			
Due to recipient error	215.6	27.8	0.13
By control			
Public	127.8	17.0	0.13
Private	75.2	11.7	0.15
Proprietary	12.6	2.7	0.21
By type			
Four year	158.9	18.9	0.12
Two year	41.4	5.7	0.14
Other	15.3	2.5	0.17
By application			
BEOG	33.4	6.0	0.18
FAF	46.7	10.4	0.22
FFS	125.9	20.6	0.16
Other	9.6	4.4	0.46
Due to institutional error	43.6	7.2	0.17
By control			
Public	32.0	6.3	0.20
Private	1.5	1.04	0.68
Proprietary	10.1	2.2	0.22
By type			
Four year	21.5	5.0	0.23
Two year	16.0	3.8	0.24
Other	6.2	1.8	0.30
By application			
BEOG	13.7	3.5	0.26
FAF	12.1	3.7	0.30
FFS	17.7	4.5	0.25
Other	*	*	*

*Too few errors and applications to make estimates.

Table 1-10. Sampling errors for key recipient statistics

Statistic	Esti-mate	Std. error	Coef. of Variation
Underpayments (millions of dollars)			
Due to recipient error	57.7	8.8	0.15
By control			
Public	34.5	5.7	0.17
Private	20.7	3.8	0.18
Proprietary	2.4	.5	0.21
By type			
Four year	43.0	6.5	0.15
Two year	10.2	2.0	0.19
Other	4.5	0.8	0.18
By application			
BEOG	8.0	1.7	0.21
FAF	11.1	2.4	0.22
FFS	35.3	6.2	0.18
Other	3.3	2.0	0.62
Due to institutional error	7.2	1.7	0.23
By control			
Public	5.4	1.5	0.29
Private	0.6	0.5	0.88
Proprietary	1.3	0.4	0.28
By type			
Four year	2.2	0.8	0.37
Two year	4.2	1.2	0.29
Other	0.9	0.4	0.39
By application			
BEOG	2.5	0.93	0.38
FAF	2.7	1.2	0.43
FFS	2.0	0.7	0.34
Other	*	*	*

*Too few errors and applications to make estimates.

Table 1-10. Sampling errors for key recipient statistics

Statistic	Esti-mate	Std. error	Coef. of Variation
Number of recipients (thousands)			
Due to recipient error	1,274	128	0.10
By control			
Public	898	86	0.10
Private	280	30	0.11
Proprietary	96	16	0.16
By type			
Four year	819	81	0.10
Two year	369	36	0.10
Other	87	13	0.14
By application			
BEOG	274	32.4	0.12
FAF	296	54	0.18
FFS	655	80	0.12
Other	45	16	0.35
Due to institutional error	1,209	125	0.10
By control			
Public	849	85	0.10
Private	266	29	0.11
Proprietary	94	16	0.17
By type			
Four year	775	79	0.10
Two year	349	35	0.10
Other	85	12	0.15
By application			
BEOG	261	31.5	0.12
FAF	288	53.2	0.18
FFS	615	77	0.12
Other	42	15	0.36

Table 1-10. Sampling errors for key recipient statistics

Statistic	Esti-mate	Std. error	Coef. of Variation
Net overpayment (or underpayment) (Millions of dollars)			
Due to recipient error	60.6	10.2	0.17
By control			
Public	42.0	7.9	0.19
Private	11.6	4.5	0.39
Proprietary	7.0	1.8	0.26
By type			
Four year	34.4	8.9	0.26
Two year	21.5	3.6	0.17
Other	4.7	2.0	0.43
By application			
BEOG	21.7	3.8	0.17
FAF	15.3	4.3	0.28
FFS	20.8	7.4	0.36
Other	2.5	1.4	0.56
Due to institutional error	51.6	8.3	0.16
By control			
Public	36.0	7.0	0.19
Private	12.8	2.2	0.17
Proprietary	2.9	2.3	0.82
By type			
Four year	35.4	5.5	0.16
Two year	12.1	3.7	0.31
Other	4.2	2.4	0.57
By application			
BEOG	10.0	3.1	0.32
FAF	11.3	3.0	0.26
FFS	27.7	6.1	0.22
Other	*	*	*

*Less than $1,000,000.

Table 1-10. Sampling errors for key recipient statistics

Statistic	Esti-mate	Std. error	Coef. of Variation
Average overpayment for those with overpayments (Dollars)			
Due to recipient error	359	14	0.04
By control			
Public	380	19	0.05
Private	341	24	0.07
Proprietary	280	31	0.11
By type			
Four year	346	17	0.05
Two year	409	28	0.07
Other	325	32	0.10
By application			
BEOG	408	29	0.07
FAF	368	18	0.05
FFS	329	20	0.06
Other	432	4	0.01
Due to institutional error	404	53	0.13
By control			
Public	373	56	0.15
Private	517	82	0.16
Proprietary	447	151	0.34
By type			
Four year	386	62	0.16
Two year	405	85	0.21
Other	537	199	0.37
By application			
BEOG	370	103	0.28
FAF	381	69	0.18
FFS	413	79	0.19
Other	*	*	*

*Too few errors and applications to make estimates.

Table 1-10. Sampling errors for key recipient statistics

Statistic	Esti-mate	Std. error	Coef. of Variation
Average underpayment for those with underpayments (Dollars)			
Due to recipient error	267.5	16.6	0.06
By control			
Public	270	21	0.08
Private	274	32	0.12
Proprietary	193	32	0.17
By type			
Four year	270	20	0.07
Two year	244	24	0.10
Other	294	38	0.13
By application			
BEOG	242	34	0.14
FAF	237	19	0.08
FFS	280	20	0.07
Other	343	85	0.25
Due to institutional error	165	26	0.16
By control			
Public	168	33	0.20
Private	400	66	0.16
Proprietary	129	16	0.18
By type			
Four year	102	29	0.28
Two year	262	45	0.17
Other	145	29	0.20
By application			
BEOG	182	38	0.21
FAF	223	69	0.31
FFS	113	30	0.27
Other	*	*	*

*Too few errors and applications to make estimates.

Table 1-10. Sampling errors for key recipient statistics

Statistic	Estimate	Std. error	Coef. of Variation
Average underpayment or overpayment (Dollars)			
Due to recipient error	47.6	7.1	0.15
By control			
Public	46	8	0.17
Private	41	16	0.38
Proprietary	73	15	0.21
By type			
Four year	42	10	0.24
Two year	58	9	0.15
Other	54	20	0.37
By application			
BEOG	76	23	0.30
FAF	52	9	0.17
FFS	32	7	0.23
Other	55	17	0.30
Due to institutional error	42.7	6.4	0.15
By control			
Public	42	8	0.18
Private	48	8	0.16
Proprietary	31	24	0.79
By type			
Four year	46	7	0.16
Two year	35	11	0.32
Other	50	26	0.53
By application			
BEOG	39	18	0.47
FAF	39	8	0.18
FFS	44	9	0.19
Other	20	5	0.25